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ABSTRACT

Data on the characteristics of scientists and engineers employed by higher education institutions and university-administered federally funded research and development institutions are presented. These data, derived from the National Science Foundation (NSF) 1984 Survey of Scientific and Engineering Personnel Employed at Universities and Colleges, are presented in 78 tables under these headings: (1) trends; (2) sex; (3) institutional control and full-time equivalents; (4) type of institution; (5) historically black colleges; (6) geographic distribution; (7) institutional rankings; (8) the top 100 doctorate-granting institutions; (9) institutional rankings by sex and type of employment; and (10) institutional categories. Data within these categories are broken down, when applicable, by sex, science and engineering field, full-time and part-time employment equivalent, status, and other variables. Sixteen summary tables are also presented, providing data by type of public or private doctorate-, master's-, or bachelor's-granting institution for the various science and engineering fields. A sample questionnaire, instructions, and related materials are appended. (The data in this report reflect NSF's conversion in 1984 of a full universe survey into a sample survey of institutions of higher education.) (JN)

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academic science/engineering: scientists and engineers, january 1984



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detailed statistical tables

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			Academic Science/Engineering: 1972-83. R&D Funds, Federal Support, Scientists and Engineers, Graduate Enrollment and Support		
			84-322 -----		
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			81-326 -----		

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To obtain accurate historical data, use only the latest detailed statistical tables for January 1984 (NSF 85-316) and not data published earlier. Institutions revise prior-year data when important changes occur in reporting practices and program classifications, and only the latest tables incorporate such changes.

general notes

The data presented in this publication are derived from the National Science Foundation's (NSF's) Survey of Scientific and Engineering Personnel Employed at Universities and Colleges, January 1984. A *Science Resources Studies Highlights* analyzing the results of this survey will be published at a later date. Beginning in January 1984, NSF converted a full universe survey into a sample survey of institutions of higher education. See Technical Notes for further details on the sampling methodology.

The tables included here present statistics on the characteristics of scientists and engineers employed by institutions of higher education; data from university-administered federally funded research and development centers (FFRDC's) are tabulated separately. FFRDC's are research and development (R&D)-performing organizations which range from the traditional contractor-owned/contractor-operated or Government-owned/contractor-operated (GOCO) organizational structures to various degrees of contractor/Government control and ownership. These organizations are formed to meet a particular R&D objective which cannot be met as effectively by existing resources.

The terms "imputation" and "imputed data" refer to the computerized process of developing estimates of data that were not furnished by certain institutions when such statistics were requested. This process develops estimates based primarily on key data items reported in prior-years' surveys when available; when not available, estimates were based on figures derived according to peer respondent institutions' characteristics, which in turn were based on highest degree granted and type of institutional control—public or private. Corresponding items are increased or decreased to reflect growth or shrinkage experienced by similar peer institutions. In these tabulations the letter "I" is used to identify

imputed data and the letter "E" is used when respondent institutions indicated that their data required slight adjustments in order to distribute them consistently.

Every effort was made to maintain close contact with respondents to preserve the consistency and continuity of the resultant data. Upon receipt, NSF carefully examined the completed 1984 questionnaires. A computer-generated facsimile of the survey form was then prepared for each institution, depicting a 2-year comparison of its responses including the current-year's data, and noting substantive disparities, if any. The facsimiles were mailed to all doctorate- and master's-granting institutions and to all other institutions whose data required corrections. This permitted updating before the final processing and tabulation by the contractor.

Data presented in trend tables are assembled from the most recently completed survey cycle. Since prior-year's data are reviewed for consistency with current-year's responses and, when necessary, revised in consultation with institutional respondents, reference to prior-years' data should be restricted to this document.

The category "doctorate-granting institutions" in this report refers to two groupings of universities. The first is based on the conventional degree-level distinction—doctorate, master's, bachelor's, and no science/engineering degree. Most of the data on doctorate-granting institutions shown in this report are based on this conventional classification system. A second system developed by the National Center for Education Statistics (NCES) uses the "doctorate-granting" institutions category in reference to institutions characterized by a significant emphasis on doctorate-level education, as measured by the number of doctorate recipients and by the diversity in doctorate-program offerings. The number of institutions included under the conventional "doctorate-granting" category

is 327; the number included under the NCES category is 165.

Four additional categories of institutions appear in the NCES classification system: "Comprehensive," "general baccalaureate," "professional and specialized," and "2-year." "Comprehensive" institutions are characterized by a strong, diverse post-baccalaureate program but are not typically involved in doctorate-level education. "General baccalaureate" institutions are primarily engaged in general undergraduate baccalaureate education. "Professional and specialized" institutions may be baccalaureate or postbaccalaureate and are characterized by a significant level of specialization in one area, usually a professional field such as business or engineering. "Professional and specialized" schools are listed as one of the following: Dentistry; medical; other health; engineering; business and management; art, music, and design; law; education; U.S. service; and other specialized or professional. "Two-year" institutions confer over three-fourths of their degrees for two years of study.

See section A, technical notes, for a detailed description of the survey universe, sampling procedures, methodology, and limitations of the data; section B for the statistical tables; section C for the survey summary data; section D for the university-administered FFRDC's; and section E for reproductions of the cover letter, questionnaire, and instructions.

Requests for additional information concerning the survey findings and for data tapes for the 1984 and prior survey years should be directed to Ms. Judith F. Coakley or Ms. Esther Gist at the following address:

Universities and Nonprofit Institutions
Studies Group
Division of Science Resources Studies
National Science Foundation
Washington, D.C. 20550
(202) 634-4673

technical notes

scope of survey

This survey covers professional employment of scientists and engineers at all academic institutions with at least one science or engineering (S/E) program. Survey questionnaires were mailed in January 1984 to a sample of approximately 1,100 institutions of higher education out of a total universe of more than 2,200. The survey forms were also mailed to the 19 university-administered federally funded research and development centers (FFRDC's). To qualify as a unit in this category, the FFRDC must be engaged in basic or applied research, development, or management of research and development (R&D) activities and the results must be directly monitored by the Federal Government, usually a single agency, in a relationship expected to be maintained on a long-term basis. The activity is operated, managed, and/or administered by either a university or consortium of universities as an autonomous organization or as an identifiable separate operating unit of its parent institution. The majority of the activity's financial support, 70 percent or more, is received from the Federal Government. In general, most or all of the facilities are owned by the Government or funded, under contract, by the Government. Data from the 19 FFRDC's are presented separately in this report.

The major difference between this report and the previously published reports in the series is that beginning in 1984 the National Science Foundation (NSF) converted the universe survey into a sample survey, in compliance with the wishes of Congress and the Office of Management and Budget to reduce the reporting burden of institutions of higher education. A stratified random sample of institutions was drawn from the survey universe comprised of all institutions of higher education, including 2-year institutions, that were identified by the NSF as offering S/E degree-credit courses. The survey excludes schools of art, education, music, law, and theology, and all others that do not employ scientists or engineers. The data in this report have been inflated to represent national estimates of employed scientists and engineers in academia.

The survey population was reviewed prior to the mailout of the questionnaires to ensure that each institutional classification was accurate. Characteristics of the schools were reviewed before and during the course of the survey to determine if changes had occurred; i.e., changes in highest degree granted, or school openings, closings, or mergers. Names of institutions newly added to the *Education Directory, Colleges and Universities, 1983-84* were reviewed to determine their eligibility for inclusion in this survey.

At the time of survey closeout in early August 1984, 1,116 universities and colleges and their 19 university-associated FFRDC's constituted the sample population. Of the survey's academic institutions, 710, or 65 percent, responded, compared to the 59-percent response rate for the survey universe in 1983. Table A-1 shows the distribution of 1984 responses by degree level of the institutions surveyed. Estimates for nonrespondent institutions represented approximately 13 percent of the total number of scientists and engineers employed

Table A-1. Science/engineering (S/E) personnel survey response rates by type of institution: January 1984

Type of institution	Number surveyed	Number of respondents	Percent of total
Total ...	1,123	728	64.8
Doctorate ...	326	279	85.6
Master's	206	124	60.2
Bachelor's and no S/E degree	591	325	55.0

SOURCE: National Science Foundation

in higher education institutions. Response rates for 2-year institutions and all other institutions that do not award at least one S/E degree are included with totals for the bachelor's degree-granting institutions surveyed. Of the 327 doctorate-granting institutions surveyed, 86 percent responded, about 4 percentage points higher than the 1983 survey. Historically, these doctorate-granting institutions have accounted for approximately two-thirds of all academic scientists and engineers.

survey items

The questionnaire used in the January 1984 survey was basically unchanged from that used since 1980. The "crosswalk" added in 1982 is now included routinely to assist respondents in matching the S/E fields referred to in this survey with the field codes devised by the National Center for Education Statistics (NCES) of the Department of Education. The NCES field codes are published in *A Classification of Instructional Programs* (NCES 81-323).

The survey questionnaire consists of three main items: Item 1 requests headcount data on the number of scientists and engineers by highest earned degree; item 2 collects headcount data by detailed S/E field, sex, and employment status (full- or part-time); and item 3 requests information on total full-time-equivalents by detailed field of science/engineering as well as full-time-equivalents engaged in research and development.

sampling and weighting procedures

NSF converted from a full population survey of 2,200 institutions to a sample survey of 1,100 institutions for the January 1984 cycle. Full-time and part-time employment were used as the variables on which to base a stratification scheme. Using the January 1982 survey universe as the sampling frame, a stratified random sample of 1,100 institutions was selected as shown in table A-2.

**Table A-2. Science/engineering personnel survey sample design:
January 1984**

Stratum	Number of institutions in universe	Number of institutions in sample	Sampling ratio	Response rate
Total	2,200	1,100	50%	64%
I. Certainty stratum	541	541	100	72
FT ≥ 275				
PT ≥ 75				
All doctorate institutions				
All HBC's				
All FFRDC's				
II. 80 ≤ FT < 275				
PT < 75	154	140	91	64
III. 40 ≤ FT < 80				
PT < 75	338	136	40	58
IV. 10 ≤ FT < 40				
PT < 75	865	254	29	52
V. FT < 10				
PT < 75	302	29	10	45

SOURCE: National Science Foundation

Stratum I is a certainty stratum including all doctorate-granting institutions and their FFRDC's and all historically black colleges. It also includes other nondoctorate-granting institutions with at least 275 full-time S/E employees and 75 part-time S/E employees. A random sample of institutions within each of the remaining sample strata II through V was selected by NSF, and the institutions in the sample comprise a "panel" that will remain unchanged for approximately five years.

The data in this report are weighted to represent the national population of S/E professionals employed at institutions of higher education. Nonrespondent cases in the certainty stratum (stratum I) were imputed as in previous surveys. Imputed data for individual institutions in this stratum were based primarily on key items reported (or estimated) in earlier surveys. Totals for these institutions were increased or decreased according to overall fluctuation rates reported by institutions at the same degree level and under the same type of control (public or private). For doctorate-

granting institutions in stratum I, the combined imputed and estimated amounts totaled about 24,900 scientists and engineers, or 10 percent of the 244,300 total. This compared to an 11-percent imputation rate in 1983. Tables A-3 and A-4 show imputed and estimated amounts for doctorate-granting institutions for the 1984 survey by field, employment status, and type of activity.

Nonrespondent cases in strata II through V were not imputed. Instead, data from those institutions that did respond were weighted to generate the total estimate for each stratum.

The following steps were used in tabulation of national estimates:

1. Weights were calculated for the sampled cases in each stratum, reflecting the probability of selection of each case.
2. These weights were adjusted for cases in the noncertainty strata, since nonrespondent cases in these strata were not imputed.

3. The weights derived in step 2 were then tested for poststratification adjustments to see if the distributions by census region, type of control, and highest degree produced from the weighted sample data were compar-

able to those of the total population. (January 1983 data for the full population were used for comparison.)
4. Ratio adjustments were performed and incorporated into the weights from step 2.

Because of the larger difference found in comparisons by highest degree offered, a poststratification adjustment was performed to bring the sample distribution more in line with that of the full population. For each highest degree subclass, the adjustment was made by multiplying the weight of each case by the ratio of the subclass population count to the weighted sample count of the subclass. The resulting weights were then used to produce new estimates. It was not necessary to make poststratification adjustments by census region or type of control.

Table A-3. Science/engineering personnel survey imputed and estimated amounts by field, employment status and activity for doctorate-granting institutions: January 1984

Disciplines	Total	Full time	Part time	Total FTE's ¹	FTE's devoted to separately budgeted R&D activities
Total	24,937	19,560	5,377	21,317	9,165
Engineers	1,786	1,449	337	2,266	1,160
Physical scientists	1,653	1,400	253	1,975	1,139
Environmental scientists	437	407	30	625	365
Mathematical scientists	1,188	792	407	1,210	131
Computer scientists	374	314	63	486	145
Life scientists	13,506	10,700	3,002	12,931	5,366
Psychologists	1,130	786	344	1,168	280
Social scientists	2,354	1,902	452	2,676	580

¹ Full-time-equivalents.

SOURCE: National Science Foundation

Table A-4. Science/engineering (S/E) personnel survey imputed and estimated amounts by field for doctorate-granting institutions: January 1984

Disciplines	All S/E employment			FTE's ¹ devoted to R&D activities		
	Total	Amount imputed and/or estimated	Percent of total	Total	Amount imputed and/or estimated	Percent of total
Total	244,286	24,937	10.2	60,260	9,165	15.2
Engineers	27,189	1,786	6.6	7,081	1,160	16.4
Physical scientists	20,127	1,653	8.2	7,073	1,139	16.1
Environmental scientists	7,447	437	5.9	2,931	365	12.5
Mathematical scientists	12,255	1,188	9.7	1,166	131	11.2
Computer scientists	7,039	374	5.3	960	145	15.1
Life scientists	130,839	13,506	10.3	36,394	5,366	14.7
Psychologists	10,866	1,130	10.4	1,302	280	21.5
Social scientists	28,524	2,354	8.3	3,353	580	17.3

¹ Full-time-equivalents.

SOURCE: National Science Foundation

standard errors of the estimates

All estimates derived from the 1984 personnel survey data, except those that pertained to institutions in the certainty stratum, were based on a sample. Because of this they will differ to some degree from the numbers that would have been obtained if data were collected for the total population of eligible institutions.

The standard errors for the estimates were calculated and then multiplied by 1.96 to provide 95-percent confidence limits. The relative standard error (coefficient of variation) of an estimate was then obtained by dividing the standard error by the estimate itself, expressed as a percentage of the estimate. The coefficient of variation was then multiplied by 1.96 to provide relative 95-percent confidence limits.

An examination of the 1984 estimate of 228,561 total full-time scientists and engineers indicate that the 95-percent confidence limits are plus or minus 2,408 full-time scientists and engineers with the coefficient of variation at 0.9 percent. Similarly, for the estimate of 88,889 part-time scientists and engineers, the 95-percent confidence limits are plus or minus 2,912 part-time scientists and engineers; the coefficient of variation at the 95-percent confidence level equals 3.3 percent. The standard errors and coefficients of variation for each major field are shown in table A-5.

For detailed studies of individual institutional responses, the reader should obtain a *Data User Guide* from J. G. Huckenpahler, at the same address as indicated in the general notes, or refer to tables in section B beginning with table B-51.

Table A-5. Standard errors of the estimates (SE) and coefficients of variation (CV) in the science/engineering (S/E) personnel survey by field: January 1984

Disciplines	Total		Full time		Part time		Total FTE's ¹		FTE's devoted to R&D activities	
	1.96SE	1.93CV	1.96SE	1.96CV	1.96SE	1.96CV	1.96SE	1.96CV	1.96SE	1.96CV
Total	4,411	1.2	2,408	0.9	2,912	3.3	8,927	2.8	86	0.8
Engineers	1,752	4.5	894	3.0	1,195	12.5	5,578	15.5	23	.3
Physical scientists ..	628	1.8	509	1.8	325	5.0	533	1.7	259	3.4
Environmental scientists	306	2.9	249	2.8	143	8.4	264	2.7	65	2.1
Mathematical scientists	1,007	3.1	487	2.3	90	6.4	685	2.6	53	4.2
Computer scientists	770	4.5	354	3.4	571	8.8	504	3.9	17	1.6
Life scientists	1,658	1.1	1,087	.9	765	2.3	1,364	1.0	76	.2
Psychologists	682	2.8	445	2.6	438	6.4	1,540	7.5	60	4.3
Social scientists	1,067	1.9	737	1.7	389	4.4	1,372	2.9	126	3.5

¹ Full-time-equivalents.

SOURCE: National Science Foundation

section b

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TABLE B-1. — SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES
BY FIELD AND STATUS: SELECTED YEARS

FIELD AND STATUS	1967	1969	1971	1973	1975	1977	1978	1980	1982	1983	1984
ALL FIELDS	212,855	231,756	257,904	264,887	278,919	297,856	307,757	324,249	349,090	358,929	370,450
FULL TIME	170,557	187,082	209,416	216,424	223,336	236,278	242,170	254,990	268,550	274,092	281,561
PART TIME	42,298	44,674	48,488	48,463	55,583	61,578	65,587	69,259	80,540	84,837	88,889
ENGINEERS	25,253	25,387	27,130	27,530	27,919	30,083	30,997	33,737	36,376	37,737	39,015
FULL TIME	20,983	21,431	25,039	23,485	22,580	24,105	24,666	26,472	27,986	28,844	29,435
PART TIME	4,270	3,956	4,091	4,045	5,339	5,978	6,331	7,265	8,390	8,893	9,580
PHYSICAL SCIENTISTS	26,243	28,149	29,443	30,210	30,836	32,120	32,839	33,554	34,500	34,778	35,521
FULL TIME	23,361	25,040	26,346	26,666	26,662	27,553	27,902	27,993	28,600	28,514	29,030
PART TIME	2,882	3,109	3,097	3,544	4,174	4,567	4,937	5,561	5,900	6,264	6,491
ENVIRONMENTAL SCIENTISTS	5,111	5,549	6,500	6,934	7,855	9,337	9,618	9,960	10,200	10,153	10,624
FULL TIME	4,294	4,935	5,752	6,091	6,787	8,075	8,285	8,453	8,672	8,691	8,933
PART TIME	817	614	748	843	1,068	1,262	1,333	1,507	1,528	1,462	1,691
MATHEMATICAL AND COMPUTER SCIENTISTS	17,776	22,695	24,548	24,770	28,475	31,996	33,034	35,957	42,234	45,666	49,282
FULL TIME	14,397	18,390	20,282	20,794	22,404	23,870	24,349	26,030	28,375	29,941	31,940
PART TIME	3,379	4,305	4,266	3,976	6,071	8,126	8,685	9,927	13,859	15,725	17,342
LIFE SCIENTISTS	87,347	97,206	110,274	112,352	113,466	117,441	122,956	133,702	146,264	151,440	156,279
FULL TIME	66,620	74,882	85,907	88,418	90,684	96,306	97,726	108,155	116,291	119,615	122,689
PART TIME	20,727	22,324	24,367	23,934	22,782	23,135	25,230	25,547	29,973	31,825	33,590
PSYCHOLOGISTS	11,358	14,780	16,806	18,876	21,649	23,699	23,752	23,257	23,711	23,772	23,967
FULL TIME	8,554	11,536	12,996	14,777	15,973	17,307	17,406	16,733	16,820	16,856	17,087
PART TIME	2,804	3,244	3,812	4,099	5,676	6,392	6,346	6,524	6,891	6,916	6,880
SOCIAL SCIENTISTS	39,767	38,190	43,203	44,215	48,719	53,180	54,561	54,082	55,805	55,333	55,762
FULL TIME	32,348	30,868	35,096	36,193	39,246	41,062	41,836	41,154	41,806	41,631	42,447
PART TIME	7,419	7,322	8,107	8,022	10,473	12,118	12,725	12,928	13,999	13,752	13,315

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-2. — SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES
BY TYPE OF INSTITUTION AND STATUS: SELECTED YEARS

TYPE OF INSTITUTION AND STATUS	1967	1969	1971	1973	1975	1977	1978	1980	1982	1983	1984
ALL INSTITUTIONS	212,855	231,756	257,904	264,887	278,919	297,856	307,757	324,249	349,090	358,929	370,450
FULL TIME	170,557	187,082	209,416	216,424	223,336	236,278	242,170	254,990	268,550	274,092	281,561
PART TIME	42,298	44,674	48,488	48,463	55,583	61,578	65,587	69,259	80,540	84,837	88,889
INSTITUTIONS GRANTING:											
DOCTORATE IN S&E	142,676	154,424	171,238	174,474	180,330	193,204	200,366	218,021	231,711	236,545	244,286
FULL TIME	114,446	124,604	140,339	143,393	148,096	159,848	164,732	179,775	189,420	192,756	197,508
PART TIME	28,230	29,820	30,899	31,081	32,234	33,356	35,634	38,246	42,291	43,789	46,778
MASTER'S IN S&E	24,729	29,441	30,080	28,703	34,075	34,790	38,628	37,362	39,030	40,665	44,743
FULL TIME	20,748	25,212	25,597	24,851	27,511	27,118	29,395	27,915	28,721	29,730	32,822
PART TIME	3,981	4,229	4,483	3,852	6,564	7,672	9,233	9,447	10,309	10,935	11,921
BACHELOR'S IN S&E	23,025	21,690	23,198	28,363	27,113	27,411	26,222	26,830	28,815	29,469	29,812
FULL TIME	19,328	17,927	19,623	23,620	22,406	22,437	21,165	20,784	21,646	22,215	21,813
PART TIME	3,697	3,763	3,575	4,743	4,707	4,974	5,057	6,046	7,169	7,250	7,999
OTHER DEGREES 1/	22,425	26,201	33,388	1,348	1,345	507	858	842	687	610	545
FULL TIME	16,035	19,339	23,857	812	828	467	705	680	579	489	476
PART TIME	6,390	6,862	9,531	536	517	140	153	162	108	121	69
2-YEAR INSTITUTIONS	-	-	-	31,999	36,056	41,844	41,683	41,194	48,847	51,640	51,064
FULL TIME	-	-	-	23,748	24,495	26,408	26,173	25,836	28,184	28,898	28,942
PART TIME	-	-	-	8,251	11,561	15,436	15,510	15,358	20,663	22,742	22,122

1/ DATA FOR 1967 THROUGH 1971 INCLUDE 2-YEAR INSTITUTIONS AS WELL AS
INSTITUTIONS AWARDED DEGREES IN NON-SCIENCE/ENGINEERING FIELDS.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-3. — FULL-TIME-EQUIVALENT SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES
BY INSTITUTIONAL CONTROL AND TYPE OF ACTIVITY: SELECTED YEARS

TYPE OF ACTIVITY AND CONTROL	1969	1971	1973	1975	1977	1978	1982	1983	1984
TOTAL FTE'S	203,937	228,216	235,050	243,071	258,041	271,656	300,356	306,442	320,292
RESEARCH AND DEVELOPMENT	50,146	49,499	46,896	50,926	54,243	55,962	59,535	60,594	61,855
OTHER ACTIVITIES	153,791	178,717	188,154	192,145	203,798	215,694	240,821	245,848	258,437
TYPE OF CONTROL:									
PUBLIC INSTITUTIONS									
TOTAL FTE'S	-	-	157,510	168,900	179,933	187,868	208,298	212,367	224,108
RESEARCH AND DEVELOPMENT ...	-	-	27,512	31,186	34,255	34,991	37,489	38,869	40,098
OTHER ACTIVITIES	-	-	129,998	137,714	145,678	152,877	170,809	173,498	184,010
PRIVATE INSTITUTIONS									
TOTAL FTE'S	-	-	77,540	74,171	78,108	83,788	92,058	94,075	96,184
RESEARCH AND DEVELOPMENT ...	-	-	19,384	19,740	19,988	20,971	22,046	21,725	21,756
OTHER ACTIVITIES	-	-	58,156	54,431	58,120	62,817	70,012	72,350	74,428

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-4. — SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES
BY FIELD: JANUARY 1977-78 AND JANUARY 1980-84 1/

FIELD	1977	1978	1980	1981	1982	1983	1984
TOTAL	297,856	307,757	324,249	334,580	349,090	358,929	370,450
ENGINEERS, TOTAL	30,083	30,997	33,737	34,905	36,376	37,737	39,015
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	1,144	1,132	1,407	1,262	1,323	1,327	1,394
CHEMICAL ENGINEERS	1,924	1,999	2,352	2,283	2,269	2,410	2,460
CIVIL ENGINEERS	5,161	5,366	5,529	5,781	6,128	6,421	6,257
ELECTRICAL ENGINEERS	6,929	7,199	8,154	8,583	9,057	9,614	10,435
MECHANICAL ENGINEERS	5,490	5,651	6,074	6,323	6,626	6,728	7,072
OTHER ENGINEERS	9,435	9,650	10,221	10,673	10,973	11,237	11,397
ALL SCIENCES, TOTAL	267,773	276,760	290,512	299,675	312,714	321,192	331,435
PHYSICAL SCIENTISTS	32,120	32,839	33,554	34,069	34,500	34,778	35,521
ASTRONOMERS 2/	-	-	955	1,065	1,199	1,095	1,193
CHEMISTS	17,120	17,664	17,614	18,087	18,062	18,328	18,821
PHYSICISTS	12,482	12,778	13,007	12,914	13,274	13,586	13,646
OTHER PHYSICAL SCIENTISTS	2,518	2,397	1,978	2,003	1,965	1,769	1,861
ENVIRONMENTAL SCIENTISTS	9,337	9,618	9,960	10,183	10,200	10,153	10,624
ATMOSPHERIC SCIENTISTS	785	962	943	918	886	1,064	975
EARTH SCIENTISTS	6,945	6,987	6,569	6,634	6,677	6,532	6,746
OCEANOGRAPHERS	1,607	1,669	1,663	1,731	1,652	1,687	1,767
OTHER ENVIRONMENTAL SCIENTISTS 2/	-	-	785	900	985	870	1,136
MATHEMATICAL AND COMPUTER SCIENTISTS ..	31,996	33,034	35,957	38,986	42,234	45,666	49,282
MATHEMATICIANS	25,439	25,993	27,079	28,578	29,882	31,320	32,247
COMPUTER SCIENTISTS	6,557	7,041	8,878	10,408	12,352	14,346	17,035
LIFE SCIENTISTS	117,441	122,956	133,702	137,773	146,264	151,440	156,279
AGRICULTURAL SCIENTISTS	14,362	15,022	15,899	16,128	16,413	16,732	17,015
BIOLOGICAL SCIENTISTS	42,618	43,597	44,803	46,351	46,784	48,084	48,558
MEDICAL SCIENTISTS	60,461	64,337	67,116	68,625	72,839	74,386	75,885
OTHER LIFE SCIENTISTS 2/	-	-	5,884	6,669	10,228	12,238	14,821
PSYCHOLOGISTS	23,699	23,752	23,257	23,386	23,711	23,772	23,967
SOCIAL SCIENTISTS	53,180	54,561	54,082	55,278	55,805	55,383	55,762
ECONOMISTS	13,865	14,087	14,672	15,077	15,459	15,571	15,847
POLITICAL SCIENTISTS	11,216	11,352	11,194	11,574	11,836	11,770	11,618
SOCIOLOGISTS	15,538	15,409	14,501	14,688	14,630	14,068	13,530
OTHER SOCIAL SCIENTISTS	12,561	13,713	13,715	13,939	13,880	13,974	14,767

1/ DATA HERE NOT COLLECTED IN 1979.

2/ DATA NOT AVAILABLE PRIOR TO 1980.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-5. — FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES
BY FIELD: JANUARY 1977-78 AND JANUARY 1980-84 1/

FIELD	1977	1978	1980	1981	1982	1983	1984
TOTAL	236,278	242,170	254,990	259,715	268,550	274,092	281,561
ENGINEERS, TOTAL	24,105	24,664	26,472	27,017	27,986	28,844	29,435
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	968	964	1,144	1,057	1,084	1,089	1,138
CHEMICAL ENGINEERS	1,684	1,725	1,886	1,902	1,917	1,951	2,043
CIVIL ENGINEERS	4,111	4,240	4,325	4,446	4,738	4,987	4,884
ELECTRICAL ENGINEERS	5,463	5,593	6,374	6,518	6,801	7,188	7,303
MECHANICAL ENGINEERS	4,467	4,532	4,817	4,932	5,040	5,112	5,411
OTHER ENGINEERS	7,412	7,612	7,926	8,162	8,406	8,517	8,656
ALL SCIENCES, TOTAL	212,173	217,504	228,518	232,698	240,564	245,248	252,126
PHYSICAL SCIENTISTS	27,553	27,902	27,993	28,178	28,600	28,514	29,030
ASTRONOMERS 2/.....	-	-	818	900	1,006	882	952
CHEMISTS	14,471	14,736	14,330	14,765	14,674	14,845	15,133
PHYSICISTS	11,056	11,254	11,323	11,010	11,437	11,426	11,531
OTHER PHYSICAL SCIENTISTS	2,026	1,912	1,522	1,503	1,483	1,361	1,414
ENVIRONMENTAL SCIENTISTS	8,075	8,285	8,453	8,678	8,672	8,691	8,933
ATMOSPHERIC SCIENTISTS	692	821	793	763	762	887	805
EARTH SCIENTISTS	5,914	5,963	5,554	5,638	5,662	5,569	5,713
OCEANOGRAPHERS	1,469	1,501	1,488	1,565	1,494	1,528	1,538
OTHER ENVIRONMENTAL SCIENTISTS 2/....	-	-	618	712	754	707	877
MATHEMATICAL AND COMPUTER SCIENTISTS ..	23,870	24,349	26,030	27,127	28,375	29,941	31,940
MATHEMATICIANS	19,287	19,564	19,914	20,232	20,554	21,075	21,407
COMPUTER SCIENTISTS	4,583	4,785	6,116	6,895	7,821	8,866	10,533
LIFE SCIENTISTS	94,306	97,726	108,155	110,567	116,291	119,615	122,689
AGRICULTURAL SCIENTISTS	13,065	13,704	14,440	14,567	14,887	15,331	15,572
BIOLOGICAL SCIENTISTS	36,875	37,661	38,714	39,914	40,258	41,152	41,579
MEDICAL SCIENTISTS	44,366	46,361	50,316	50,836	53,302	53,758	54,506
OTHER LIFE SCIENTISTS 2/.....	-	-	4,685	5,250	7,844	9,374	11,032
PSYCHOLOGISTS	17,307	17,406	16,733	16,859	16,820	16,856	17,087
SOCIAL SCIENTISTS	41,062	41,836	41,154	41,289	41,806	41,631	42,447
ECONOMISTS	10,695	10,854	11,092	11,230	11,502	11,599	12,122
POLITICAL SCIENTISTS	9,004	9,055	8,767	8,999	9,176	9,123	9,139
SOCIOLOGISTS	11,674	11,502	10,860	10,747	10,766	10,485	10,208
OTHER SOCIAL SCIENTISTS	9,689	10,425	10,435	10,313	10,362	10,424	10,978

1/ DATA WERE NOT COLLECTED IN 1979.
2/ DATA NOT AVAILABLE PRIOR TO 1980.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-6. — PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES
BY FIELD: JANUARY 1977-78 AND JANUARY 1980-84 1/

FIELD	1977	1978	1980	1981	1982	1983	1984
TOTAL	61,578	65,587	69,259	74,865	80,540	84,837	88,889
ENGINEERS, TOTAL	5,978	6,331	7,265	7,888	8,390	8,893	9,580
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	176	168	263	205	239	238	256
CHEMICAL ENGINEERS	240	274	466	381	352	459	417
CIVIL ENGINEERS	1,050	1,126	1,204	1,335	1,390	1,434	1,373
ELECTRICAL ENGINEERS	1,466	1,606	1,780	2,065	2,256	2,426	3,132
MECHANICAL ENGINEERS	1,023	1,119	1,257	1,391	1,586	1,616	1,661
OTHER ENGINEERS	2,023	2,038	2,295	2,511	2,567	2,720	2,741
ALL SCIENCES, TOTAL	55,600	59,256	61,994	66,977	72,150	75,944	79,309
PHYSICAL SCIENTISTS	4,567	4,937	5,551	5,891	5,900	6,264	6,491
ASTRONOMERS 2/.....	-	-	137	165	193	213	241
CHEMISTS	2,649	2,928	3,284	3,322	3,388	3,483	3,688
PHYSICISTS	1,426	1,524	1,684	1,904	1,837	2,160	2,115
OTHER PHYSICAL SCIENTISTS	492	485	456	500	482	408	447
ENVIRONMENTAL SCIENTISTS	1,262	1,333	1,507	1,505	1,528	1,462	1,691
ATMOSPHERIC SCIENTISTS	93	141	150	155	124	177	170
EARTH SCIENTISTS	1,031	1,024	1,015	996	1,015	963	1,033
OCEANOGRAPHERS	138	168	175	166	158	159	229
OTHER ENVIRONMENTAL SCIENTISTS 2/....	-	-	167	188	231	163	259
MATHEMATICAL AND COMPUTER SCIENTISTS ..	8,126	8,485	9,927	11,859	13,859	15,725	17,342
MATHEMATICIANS	6,152	6,429	7,165	8,346	9,328	10,245	10,840
COMPUTER SCIENTISTS	1,974	2,256	2,762	3,513	4,531	5,480	6,502
LIFE SCIENTISTS	23,135	25,230	25,547	27,206	29,973	31,825	33,590
AGRICULTURAL SCIENTISTS	1,297	1,318	1,459	1,561	1,526	1,401	1,443
BIOLOGICAL SCIENTISTS	5,743	5,936	6,089	6,437	6,526	6,932	6,979
MEDICAL SCIENTISTS	16,095	17,976	16,800	17,789	19,537	20,628	21,379
OTHER LIFE SCIENTISTS 2/.....	-	-	1,199	1,419	2,384	2,864	3,789
PSYCHOLOGISTS	6,392	6,346	6,524	6,527	6,891	6,916	6,880
SOCIAL SCIENTISTS	12,118	12,725	12,928	13,989	13,999	13,752	13,315
ECONOMISTS	3,170	3,233	3,580	3,847	3,957	3,972	3,725
POLITICAL SCIENTISTS	2,212	2,297	2,427	2,575	2,640	2,647	2,679
SOCIOLOGISTS	3,864	3,907	3,641	3,941	3,864	3,583	3,322
OTHER SOCIAL SCIENTISTS	2,872	3,288	3,280	3,626	3,518	3,550	3,789

1/ DATA WERE NOT COLLECTED IN 1979.
2/ DATA NOT AVAILABLE PRIOR TO 1980.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-7. — SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS
BY FIELD: JANUARY 1977 - JANUARY 1984

FIELD	1977	1978	1979	1980	1981	1982	1983	1984
TOTAL	193,204	200,366	210,579	218,021	223,925	231,711	236,545	244,286
ENGINEERS	21,198	21,740	23,528	24,482	25,072	25,480	26,183	27,189
AERONAUTICAL AND ASTRONAUTICAL								
ENGINEERS	871	830	893	1,113	961	988	1,005	1,081
CHEMICAL ENGINEERS	1,711	1,751	1,890	2,070	1,962	1,994	2,088	2,249
CIVIL ENGINEERS	3,518	3,631	3,715	3,797	3,917	4,235	4,427	4,465
ELECTRICAL ENGINEERS	4,317	4,547	5,172	5,481	5,638	5,757	6,049	6,425
MECHANICAL ENGINEERS	3,554	3,620	3,821	4,001	4,156	4,188	4,188	4,483
OTHER ENGINEERS	7,227	7,361	8,088	8,020	8,438	8,318	8,426	8,486
PHYSICAL SCIENTISTS	17,782	18,283	18,797	19,239	19,521	19,661	19,498	20,127
ASTRONOMERS 1/	—	—	751	736	800	888	779	904
CHEMISTS	8,744	9,140	9,084	9,232	9,644	9,453	9,529	9,785
PHYSICISTS	7,449	7,661	7,801	7,988	7,797	8,135	8,288	8,437
OTHER PHYSICAL SCIENTISTS	1,589	1,482	1,161	1,283	1,280	1,185	902	1,001
ENVIRONMENTAL SCIENTISTS	6,211	6,497	6,637	6,895	7,085	7,131	7,022	7,447
ATMOSPHERIC SCIENTISTS	671	800	784	804	768	759	929	880
EARTH SCIENTISTS	4,116	4,230	3,893	4,070	4,236	4,313	4,090	4,248
OCEANOGRAPHERS	1,424	1,467	1,662	1,487	1,561	1,457	1,504	1,581
OTHER ENVIRONMENTAL SCIENTISTS 1/	—	—	298	514	520	602	499	738
MATHEMATICAL AND COMPUTER SCIENTISTS	12,955	13,522	14,469	15,644	16,574	17,395	18,425	19,294
MATHEMATICIANS	9,892	10,251	10,534	11,083	11,470	11,713	12,142	12,255
COMPUTER SCIENTISTS	3,063	3,271	3,935	4,561	5,104	5,682	6,283	7,039
LIFE SCIENTISTS	98,886	102,824	108,984	113,588	116,638	123,056	126,857	130,839
AGRICULTURAL SCIENTISTS	12,079	12,579	13,258	13,498	13,723	13,973	14,240	14,758
BIOLOGICAL SCIENTISTS	28,899	29,503	30,911	31,385	32,934	33,054	34,173	35,165
MEDICAL SCIENTISTS	57,908	60,742	61,586	64,187	65,331	69,762	71,107	72,859
OTHER LIFE SCIENTISTS 1/	—	—	3,229	4,518	4,650	6,267	7,337	8,057
PSYCHOLOGISTS	9,815	9,989	10,041	10,229	10,438	10,417	10,086	10,846
SOCIAL SCIENTISTS	26,357	27,511	28,123	27,944	28,597	28,571	28,074	28,524
ECONOMISTS	7,316	7,614	7,982	8,111	8,227	8,345	8,317	8,264
POLITICAL SCIENTISTS	5,214	5,340	5,503	5,410	5,628	5,792	5,678	5,549
SOCIOLOGISTS	6,610	6,622	6,628	6,363	6,696	6,514	6,139	5,868
OTHER SOCIAL SCIENTISTS	7,217	7,935	8,010	8,060	8,046	7,914	7,940	8,843

1/ DATA NOT AVAILABLE PRIOR TO 1979.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-8. — FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS
BY FIELD: JANUARY 1977 - JANUARY 1984

FIELD	1977	1978	1979	1980	1981	1982	1983	1984
TOTAL	159,848	164,732	173,190	179,775	183,179	189,420	192,756	197,508
ENGINEERS	17,955	18,428	19,932	20,468	20,866	21,336	21,857	22,513
AERONAUTICAL AND ASTRONAUTICAL								
ENGINEERS	778	748	778	945	846	854	865	917
CHEMICAL ENGINEERS	1,503	1,540	1,611	1,690	1,687	1,722	1,734	1,888
CIVIL ENGINEERS	2,967	3,079	3,122	3,176	3,242	3,489	3,671	3,653
ELECTRICAL ENGINEERS	3,696	3,847	4,387	4,671	4,738	4,867	5,098	5,316
MECHANICAL ENGINEERS	3,072	3,104	3,277	3,409	3,505	3,504	3,529	3,737
OTHER ENGINEERS	5,939	6,110	6,757	6,577	6,548	6,900	6,960	7,002
PHYSICAL SCIENTISTS	15,940	16,245	16,413	16,773	16,962	17,317	17,116	17,521
ASTRONOMERS 1/	—	—	687	685	736	813	700	791
CHEMISTS	7,716	7,963	7,749	7,779	8,261	8,143	8,243	8,365
PHYSICISTS	6,810	6,981	7,076	7,271	6,958	7,407	7,399	7,572
OTHER PHYSICAL SCIENTISTS	1,414	1,301	901	1,038	1,007	954	774	793
ENVIRONMENTAL SCIENTISTS	5,595	5,827	5,891	6,041	6,265	6,301	6,309	6,472
ATMOSPHERIC SCIENTISTS	608	712	693	701	669	688	818	742
EARTH SCIENTISTS	3,682	3,761	3,476	3,570	3,739	3,781	3,655	3,722
OCEANOGRAPHERS	1,325	1,354	1,529	1,360	1,437	1,349	1,388	1,439
OTHER ENVIRONMENTAL SCIENTISTS 1/	—	—	193	410	420	483	448	569
MATHEMATICAL AND COMPUTER SCIENTISTS	10,866	11,191	11,970	12,823	13,411	13,916	14,620	15,110
MATHEMATICIANS	8,426	8,613	8,896	9,156	9,380	9,418	9,653	9,613
COMPUTER SCIENTISTS	2,440	2,578	3,074	3,667	4,031	4,498	4,967	5,497
LIFE SCIENTISTS	79,738	82,278	87,936	92,720	94,549	98,994	101,460	103,844
AGRICULTURAL SCIENTISTS	11,315	11,830	12,335	12,549	12,667	13,008	13,397	13,763
BIOLOGICAL SCIENTISTS	25,803	26,451	27,533	28,158	29,411	29,698	30,463	31,287
MEDICAL SCIENTISTS	42,620	43,997	45,484	48,413	48,757	51,447	51,824	52,644
OTHER LIFE SCIENTISTS 1/	—	—	2,584	3,600	3,714	4,841	5,776	6,150
PSYCHOLOGISTS	7,869	8,007	7,971	8,049	8,213	8,224	8,291	8,566
SOCIAL SCIENTISTS	21,885	22,756	23,077	22,701	22,913	23,332	23,103	23,482
ECONOMISTS	6,175	6,394	6,619	6,707	6,712	6,874	6,862	7,043
POLITICAL SCIENTISTS	4,306	4,436	4,456	4,376	4,587	4,691	4,627	4,554
SOCIOLOGISTS	5,435	5,446	5,457	5,220	5,249	5,248	5,014	4,816
OTHER SOCIAL SCIENTISTS	5,969	6,480	6,545	6,598	6,365	6,519	6,600	7,069

1/ DATA NOT AVAILABLE PRIOR TO 1979.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-9. -- PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS
BY FIELD: JANUARY 1977 - JANUARY 1984

FIELD	1977	1978	1979	1980	1981	1982	1983	1984
TOTAL	33,354	35,634	37,389	38,246	40,744	42,291	43,789	46,778
ENGINEERS	3,243	3,312	3,596	4,014	4,206	4,144	4,326	4,676
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	93	82	115	168	115	134	140	164
CHEMICAL ENGINEERS	208	211	279	380	275	272	354	361
CIVIL ENGINEERS	551	552	593	621	675	746	756	812
ELECTRICAL ENGINEERS	621	700	728	810	900	890	951	1,109
MECHANICAL ENGINEERS	482	516	550	592	651	684	659	746
OTHER ENGINEERS	1,288	1,251	1,331	1,443	1,590	1,418	1,466	1,484
PHYSICAL SCIENTISTS	1,842	2,038	2,384	2,466	2,559	2,344	2,382	2,606
ASTRONOMERS 1/	-	-	64	51	64	75	79	113
CHEMISTS	1,028	1,177	1,335	1,453	1,383	1,310	1,286	1,420
PHYSICISTS	635	680	725	717	829	728	889	865
OTHER PHYSICAL SCIENTISTS	175	181	260	245	273	231	128	208
ENVIRONMENTAL SCIENTISTS	616	670	746	854	820	830	713	975
ATMOSPHERIC SCIENTISTS	63	88	91	103	99	71	111	138
EARTH SCIENTISTS	454	469	417	520	497	532	435	526
OCEANOGRAPHERS	99	113	133	127	124	108	116	142
OTHER ENVIRONMENTAL SCIENTISTS 1/	-	-	105	104	100	119	51	169
MATHEMATICAL AND COMPUTER SCIENTISTS	2,089	2,331	2,499	2,821	3,163	3,479	3,805	4,184
MATHEMATICIANS	1,466	1,636	1,638	1,927	2,090	2,295	2,489	2,642
COMPUTER SCIENTISTS	623	693	861	894	1,073	1,184	1,316	1,542
LIFE SCIENTISTS	19,148	20,546	21,048	20,868	22,089	24,062	25,397	26,995
AGRICULTURAL SCIENTISTS	764	749	923	949	1,056	965	843	995
BIOLOGICAL SCIENTISTS	3,096	3,052	3,378	3,227	3,523	3,356	3,710	3,878
MEDICAL SCIENTISTS	15,288	16,745	16,102	15,774	16,574	18,315	19,283	20,215
OTHER LIFE SCIENTISTS 1/	-	-	645	918	936	1,426	1,561	1,907
PSYCHOLOGISTS	1,946	1,982	2,070	2,180	2,225	2,193	2,195	2,300
SOCIAL SCIENTISTS	4,472	4,755	5,046	5,043	5,684	5,239	4,971	5,042
ECONOMISTS	1,141	1,220	1,363	1,404	1,515	1,471	1,455	1,221
POLITICAL SCIENTISTS	908	904	1,047	1,034	1,041	1,107	1,051	995
SOCIOLOGISTS	1,175	1,176	1,171	1,143	1,447	1,266	1,125	1,052
OTHER SOCIAL SCIENTISTS	1,248	1,455	1,465	1,462	1,681	1,395	1,340	1,774

1/ DATA NOT AVAILABLE PRIOR TO 1979.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-10. -- FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES
BY CONTROL AND LEVEL OF ATTAINMENT: JANUARY 1977-78 AND JANUARY 1980-84 1/

CONTROL AND LEVEL OF ATTAINMENT	1977	1978	1980	1981	1982	1983	1984	PERCENT CHANGE 1983-84
ALL INSTITUTIONS								
TOTAL	236,278	242,170	254,990	259,715	268,550	274,092	281,561	2.7%
DOCTOR'S	134,646	138,971	143,429	145,961	149,658	152,082	156,594	2.3
FIRST PROFESSIONAL	30,835	31,633	34,331	34,372	36,468	36,394	37,958	4.3
MASTER'S	54,096	54,557	56,741	57,242	59,264	61,049	61,358	.5
BACHELOR'S	16,701	17,009	20,489	22,140	23,160	23,567	25,651	8.8
PUBLIC INSTITUTIONS								
TOTAL	166,510	169,396	178,172	181,545	188,126	191,433	196,754	2.8
DOCTOR'S	93,341	95,916	99,027	100,891	103,110	105,133	107,535	2.3
FIRST PROFESSIONAL	16,563	16,425	17,414	17,483	19,130	19,025	19,820	4.2
MASTER'S	43,408	43,842	45,781	46,019	47,656	48,883	49,739	1.8
BACHELOR'S	13,198	13,213	15,950	17,152	18,230	18,392	19,660	6.9
PRIVATE INSTITUTIONS								
TOTAL	69,768	72,774	76,818	78,170	80,424	82,659	84,807	2.6
DOCTOR'S	41,305	43,055	44,402	45,070	46,548	47,949	49,059	2.3
FIRST PROFESSIONAL	14,272	15,208	16,917	16,889	17,338	17,369	18,138	4.4
MASTER'S	10,688	10,715	10,960	11,223	11,608	12,166	11,619	-4.5
BACHELOR'S	3,503	3,796	4,539	4,988	4,930	5,175	5,991	15.8

1/ DATA WERE NOT COLLECTED IN 1979.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-11. — PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES
BY CONTROL AND LEVEL OF ATTAINMENT: JANUARY 1977-78 AND JANUARY 1980-84 1/

CONTROL AND LEVEL OF ATTAINMENT	1977	1978	1980	1981	1982	1983	1984	PERCENT CHANGE 1983-84
ALL INSTITUTIONS								
TOTAL	61,578	65,587	69,259	74,865	80,540	84,837	88,889	4.8%
DOCTOR'S	15,542	16,987	18,167	18,799	19,140	19,695	20,382	3.5
FIRST PROFESSIONAL	13,683	15,101	14,363	15,593	16,534	17,308	17,090	-1.3
MASTER'S	23,915	24,672	26,731	29,320	31,768	33,262	35,481	6.7
BACHELOR'S	8,413	8,827	9,998	11,153	13,098	14,572	15,936	9.4
PUBLIC INSTITUTIONS								
TOTAL	39,388	41,559	45,853	49,284	52,446	54,896	58,070	5.8
DOCTOR'S	8,969	9,827	11,152	11,305	10,874	11,358	12,026	5.9
FIRST PROFESSIONAL	6,707	7,296	7,673	7,945	8,518	7,396	8,716	3.8
MASTER'S	17,028	17,439	18,760	20,865	22,503	23,449	24,963	6.5
BACHELOR'S	6,684	6,997	8,270	9,169	10,551	11,693	12,365	5.7
PRIVATE INSTITUTIONS								
TOTAL	22,190	24,028	23,404	25,581	28,094	29,941	30,819	2.9
DOCTOR'S	6,593	7,160	7,015	7,494	8,266	8,337	8,356	.2
FIRST PROFESSIONAL	6,981	7,805	6,690	7,648	8,016	8,912	8,374	-6.0
MASTER'S	6,887	7,233	7,971	8,455	9,265	9,813	10,518	7.2
BACHELOR'S	1,729	1,830	1,728	1,984	2,547	2,879	3,571	24.0

1/ DATA WERE NOT COLLECTED IN 1979.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-12. — MALE FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES
BY FIELD: JANUARY 1977-78 AND JANUARY 1980-84 1/

FIELD	1977	1978	1980	1981	1982	1983	1984
TOTAL	199,421	203,209	210,775	213,043	217,624	220,567	224,255
ENGINEERS	23,599	24,068	25,759	26,212	27,136	27,833	28,326
AERONAUTICAL AND ASTRONAUTICAL	946	946	1,117	1,035	1,064	1,066	1,115
CHEMICAL ENGINEERS	1,644	1,692	1,827	1,833	1,827	1,854	1,930
CIVIL ENGINEERS	4,022	4,112	4,207	4,313	4,573	4,779	4,676
ELECTRICAL ENGINEERS	5,392	5,502	6,260	6,393	6,671	7,021	7,109
MECHANICAL ENGINEERS	4,408	4,471	4,725	4,820	4,951	5,019	5,313
OTHER ENGINEERS	7,187	7,345	7,623	7,818	8,050	8,094	8,183
PHYSICAL SCIENTISTS	25,342	25,451	25,502	25,580	25,949	25,818	26,143
ASTRONOMERS 2/	-	-	750	821	932	813	881
CHEMISTS	12,908	13,012	12,551	12,893	12,774	12,881	13,116
PHYSICISTS	10,618	10,771	10,831	10,521	10,928	10,904	10,951
OTHER PHYSICAL SCIENTISTS	1,816	1,668	1,370	1,345	1,315	1,220	1,195
ENVIRONMENTAL SCIENTISTS	7,546	7,696	7,775	7,915	7,857	7,870	8,097
ATMOSPHERIC SCIENTISTS	654	786	749	713	712	817	751
EARTH SCIENTISTS	5,565	5,552	5,156	5,212	5,212	5,108	5,261
OCEANOGRAPHERS	1,327	1,358	1,343	1,386	1,281	1,325	1,297
OTHER ENVIRONMENTAL SCIENTISTS 2/	-	-	527	604	652	620	788
MATHEMATICAL AND COMPUTER SCIENTISTS	20,612	20,874	21,945	22,674	23,496	24,615	25,972
MATHEMATICIANS	16,566	16,649	16,738	16,904	17,032	17,361	17,516
COMPUTER SCIENTISTS	4,046	4,225	5,207	5,770	6,464	7,254	8,456
LIFE SCIENTISTS	75,595	77,776	84,054	84,758	87,139	88,375	88,764
AGRICULTURAL SCIENTISTS	11,953	12,465	13,113	13,210	13,398	13,716	13,764
BIOLOGICAL SCIENTISTS	29,314	29,870	30,497	31,170	31,089	31,546	31,726
MEDICAL SCIENTISTS	34,328	35,441	38,601	38,349	40,022	40,353	40,442
OTHER LIFE SCIENTISTS 2/	-	-	1,843	2,029	2,630	2,760	2,831
PSYCHOLOGISTS	13,095	13,092	12,415	12,444	12,365	12,379	12,596
SOCIAL SCIENTISTS	33,672	34,252	33,325	33,460	33,682	33,677	34,357
ECONOMISTS	9,738	9,886	9,982	10,110	10,289	10,373	10,803
POLITICAL SCIENTISTS	7,955	7,976	7,655	7,839	7,895	7,881	7,898
SOCIOLOGISTS	8,631	8,475	7,920	7,790	7,738	7,613	7,497
OTHER SOCIAL SCIENTISTS	7,348	7,915	7,768	7,721	7,760	7,810	8,159

1/ DATA WERE NOT COLLECTED IN 1979.
2/ DATA WERE NOT AVAILABLE PRIOR TO 1980.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-13. -- FEMALE FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES
BY FIELD: JANUARY 1977-78 AND JANUARY 1980-84 1/

FIELD	1977	1978	1980	1981	1982	1983	1984
TOTAL	36,857	38,961	44,215	46,672	50,926	53,525	57,306
ENGINEERS	906	998	713	805	850	1,011	1,109
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	22	18	27	22	20	23	23
CHEMICAL ENGINEERS	40	33	59	69	90	97	113
CIVIL ENGINEERS	89	128	118	133	165	208	208
ELECTRICAL ENGINEERS	71	91	114	125	130	167	194
MECHANICAL ENGINEERS	59	61	92	112	89	93	98
OTHER ENGINEERS	225	267	303	344	356	423	473
PHYSICAL SCIENTISTS	2,211	2,451	2,491	2,598	2,651	2,696	2,887
ASTRONOMERS 2/	-	-	68	79	74	69	71
CHEMISTS	1,563	1,724	1,779	1,872	1,900	1,964	2,017
PHYSICISTS	438	483	492	489	509	522	580
OTHER PHYSICAL SCIENTISTS	210	244	152	158	168	141	219
ENVIRONMENTAL SCIENTISTS	529	589	678	763	815	821	836
ATMOSPHERIC SCIENTISTS	38	35	44	50	50	70	54
EARTH SCIENTISTS	349	411	398	426	450	461	452
OCEANOGRAPHERS	142	143	145	179	213	203	241
OTHER ENVIRONMENTAL SCIENTISTS 2/ ..	-	-	91	108	102	87	89
MATHEMATICAL AND COMPUTER SCIENTISTS ..	3,257	3,475	4,085	4,453	4,879	5,326	5,968
MATHEMATICIANS	2,722	2,915	3,176	3,328	3,522	3,714	3,891
COMPUTER SCIENTISTS	537	560	909	1,125	1,357	1,612	2,077
LIFE SCIENTISTS	18,711	19,950	24,101	25,809	29,152	31,240	33,925
AGRICULTURAL SCIENTISTS	1,112	1,239	1,327	1,397	1,489	1,615	1,808
BIOLOGICAL SCIENTISTS	7,561	7,791	8,217	8,744	9,169	9,606	9,853
MEDICAL SCIENTISTS	10,038	10,920	11,715	12,487	13,280	13,405	14,063
OTHER LIFE SCIENTISTS 2/	-	-	2,842	3,221	5,214	6,614	8,201
PSYCHOLOGISTS	4,252	4,314	4,318	4,415	4,455	4,477	4,491
SOCIAL SCIENTISTS	7,390	7,584	7,829	7,829	8,124	7,954	8,090
ECONOMISTS	957	968	1,110	1,120	1,213	1,226	1,319
POLITICAL SCIENTISTS	1,049	1,079	1,112	1,160	1,281	1,242	1,241
SOCIOLOGISTS	3,043	3,027	2,940	2,957	3,028	2,872	2,711
OTHER SOCIAL SCIENTISTS	2,341	2,510	2,667	2,592	2,602	2,614	2,819

1/ DATA HERE NOT COLLECTED IN 1979.
2/ DATA HERE NOT AVAILABLE PRIOR TO 1980.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-14. -- FULL-TIME-EQUIVALENT SCIENTISTS AND ENGINEERS EMPLOYED AT
UNIVERSITIES AND COLLEGES BY FIELD: JANUARY 1978 AND JANUARY 1982-84

FIELD	1978	1982	1983	1984
TOTAL	271,656	300,356	306,442	320,292
ENGINEERS	27,546	31,070	32,092	35,979
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	1,024	1,161	1,156	1,235
CHEMICAL ENGINEERS	1,869	2,040	2,115	2,181
CIVIL ENGINEERS	4,741	5,273	5,599	5,444
ELECTRICAL ENGINEERS	6,272	7,608	8,060	9,930
MECHANICAL ENGINEERS	5,019	5,581	5,683	6,786
OTHER ENGINEERS	8,621	9,403	9,521	10,204
PHYSICAL SCIENTISTS	30,580	31,213	31,271	31,818
ASTRONOMERS 1/	-	1,049	960	1,048
CHEMISTS	16,378	16,215	16,395	16,739
PHYSICISTS	12,056	12,233	12,313	12,373
OTHER PHYSICAL SCIENTISTS	2,146	1,717	1,541	1,662
ENVIRONMENTAL SCIENTISTS	9,004	9,307	9,346	9,616
ATMOSPHERIC SCIENTISTS	899	815	970	864
EARTH SCIENTISTS	6,523	6,060	6,001	6,122
OCEANOGRAPHERS	1,582	1,580	1,598	1,617
OTHER ENVIRONMENTAL SCIENTISTS 1/	-	851	775	1,012
MATHEMATICAL AND COMPUTER SCIENTISTS	28,191	34,051	36,253	39,024
MATHEMATICIANS	22,461	24,510	25,352	25,964
COMPUTER SCIENTISTS	5,731	9,541	10,902	13,059
LIFE SCIENTISTS	108,854	128,076	131,152	135,211
AGRICULTURAL SCIENTISTS	14,378	15,657	16,066	15,998
BIOLOGICAL SCIENTISTS	40,711	42,754	44,156	44,727
MEDICAL SCIENTISTS	53,765	60,937	60,607	61,871
OTHER LIFE SCIENTISTS 1/	-	8,726	10,327	12,615
PSYCHOLOGISTS	20,141	19,449	19,441	20,553
SOCIAL SCIENTISTS	47,340	47,175	46,943	48,094
ECONOMISTS	12,277	12,998	13,096	13,494
POLITICAL SCIENTISTS	10,135	10,228	10,131	10,169
SOCIOLOGISTS	13,175	12,277	11,926	12,083
OTHER SOCIAL SCIENTISTS	11,754	11,673	11,789	12,349

1/ DATA NOT AVAILABLE PRIOR TO 1979.
NOTE: DETAIL MAY NOT ADD TO TOTAL BECAUSE OF ROUNDING.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-15. — FULL-TIME-EQUIVALENT SCIENTISTS AND ENGINEERS EMPLOYED IN RESEARCH AND DEVELOPMENT AT UNIVERSITIES AND COLLEGES BY FIELD: JANUARY 1978 AND JANUARY 1982-84

FIELD	1978	1982	1983	1984
TOTAL	55,962	59,535	60,594	61,855
ENGINEERS	5,910	6,755	7,048	7,158
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	290	318	323	319
CHEMICAL ENGINEERS	462	465	536	569
CIVIL ENGINEERS	717	789	769	829
ELECTRICAL ENGINEERS	1,327	1,729	1,902	1,989
MECHANICAL ENGINEERS	833	867	892	941
OTHER ENGINEERS	2,281	2,590	2,630	2,510
PHYSICAL SCIENTISTS	7,016	7,322	7,112	7,531
ASTRONOMERS 1/	-	410	405	446
CHEMISTS	3,291	3,119	3,094	3,276
PHYSICISTS	2,795	3,090	3,042	3,099
OTHER PHYSICAL SCIENTISTS	930	705	552	709
ENVIRONMENTAL SCIENTISTS	2,584	2,979	3,044	3,053
ATMOSPHERIC SCIENTISTS	453	400	545	485
EARTH SCIENTISTS	1,391	1,399	1,300	1,286
OCEANOGRAPHERS	741	926	964	980
OTHER ENVIRONMENTAL SCIENTISTS 1/	-	256	237	301
MATHEMATICAL AND COMPUTER SCIENTISTS	2,463	2,159	2,209	2,299
MATHEMATICIANS	1,614	1,364	1,312	1,282
COMPUTER SCIENTISTS	847	796	897	1,017
LIFE SCIENTISTS	31,045	35,250	36,019	36,806
AGRICULTURAL SCIENTISTS	4,556	6,492	6,559	6,701
BIOLOGICAL SCIENTISTS	12,360	12,687	13,230	13,907
MEDICAL SCIENTISTS	14,130	15,443	15,535	15,450
OTHER LIFE SCIENTISTS 1/	-	628	698	747
PSYCHOLOGISTS	2,032	1,480	1,482	1,394
SOCIAL SCIENTISTS	4,912	3,585	3,678	3,613
ECONOMISTS	1,651	1,231	1,204	1,221
POLITICAL SCIENTISTS	754	625	672	552
SOCIOLOGISTS	1,117	707	650	605
OTHER SOCIAL SCIENTISTS	1,389	1,022	1,151	1,234

1/ DATA NOT AVAILABLE PRIOR TO 1979.
NOTE: DETAIL MAY NOT ADD TO TOTAL BECAUSE OF ROUNDING.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-16. — FULL-TIME-EQUIVALENT SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS BY FIELD: JANUARY 1978 AND JANUARY 1982-84

FIELD	1978	1982	1983	1984
TOTAL	181,068	205,194	208,243	214,385
ENGINEERS	20,055	22,763	23,312	24,117
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	779	895	903	964
CHEMICAL ENGINEERS	1,653	1,810	1,854	2,008
CIVIL ENGINEERS	3,337	3,761	3,965	3,952
ELECTRICAL ENGINEERS	4,140	5,134	5,382	5,688
MECHANICAL ENGINEERS	3,338	3,710	3,725	3,964
OTHER ENGINEERS	6,808	7,451	7,485	7,541
PHYSICAL SCIENTISTS	17,424	18,230	18,033	18,626
ASTRONOMERS 1/	-	809	724	831
CHEMISTS	8,673	8,679	8,767	8,991
PHYSICISTS	7,345	7,667	7,706	7,878
OTHER PHYSICAL SCIENTISTS	1,406	1,075	837	927
ENVIRONMENTAL SCIENTISTS	6,212	6,600	6,625	6,857
ATMOSPHERIC SCIENTISTS	768	714	870	788
EARTH SCIENTISTS	4,032	3,941	3,847	3,928
OCEANOGRAPHERS	1,412	1,406	1,431	1,476
OTHER ENVIRONMENTAL SCIENTISTS 1/	-	538	476	665
MATHEMATICAL AND COMPUTER SCIENTISTS	12,192	15,195	16,044	16,671
MATHEMATICIANS	9,351	10,274	10,602	10,629
COMPUTER SCIENTISTS	2,842	4,921	5,442	6,042
LIFE SCIENTISTS	91,367	108,193	110,337	113,338
AGRICULTURAL SCIENTISTS	12,299	13,531	13,890	14,008
BIOLOGICAL SCIENTISTS	28,087	30,717	31,969	33,039
MEDICAL SCIENTISTS	50,981	58,628	58,259	59,557
OTHER LIFE SCIENTISTS 1/	-	5,317	6,220	6,734
PSYCHOLOGISTS	8,945	9,007	9,027	9,465
SOCIAL SCIENTISTS	24,873	25,207	24,863	25,311
ECONOMISTS	6,909	7,369	7,338	7,431
POLITICAL SCIENTISTS	4,848	5,112	4,983	4,899
SOCIOLOGISTS	5,988	5,691	5,424	5,213
OTHER SOCIAL SCIENTISTS	7,129	7,034	7,119	7,768

1/ DATA NOT AVAILABLE PRIOR TO 1979.
NOTE: DETAIL MAY NOT ADD TO TOTAL BECAUSE OF ROUNDING.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-17. — FULL-TIME-EQUIVALENT SCIENTISTS AND ENGINEERS EMPLOYED IN RESEARCH AND DEVELOPMENT AT DOCTORATE-GRANTING INSTITUTIONS BY FIELD: JANUARY 1978 AND JANUARY 1982-84

FIELD	1978	1982	1983	1984
TOTAL	53,395	57,830	59,032	60,260
ENGINEERS	5,672	6,637	6,930	7,081
AERONAUTICAL AND ASTRONAUTICAL				
ENGINEERS	278	308	316	314
CHEMICAL ENGINEERS	459	457	527	566
CIVIL ENGINEERS	678	765	753	812
ELECTRICAL ENGINEERS	1,261	1,698	1,868	1,964
MECHANICAL ENGINEERS	788	841	863	927
OTHER ENGINEERS	2,208	2,569	2,605	2,498
PHYSICAL SCIENTISTS	6,644	6,975	6,797	7,074
ASTRONOMERS 1/	-	407	403	440
CHEMISTS	3,053	2,931	2,916	3,069
PHYSICISTS	2,669	2,978	2,969	3,003
OTHER PHYSICAL SCIENTISTS	922	660	509	562
ENVIRONMENTAL SCIENTISTS	2,443	2,875	2,933	2,931
ATMOSPHERIC SCIENTISTS	430	394	538	482
EARTH SCIENTISTS	1,296	1,338	1,238	1,201
OCEANOGRAPHERS	717	905	939	960
OTHER ENVIRONMENTAL SCIENTISTS 1/	-	239	219	287
MATHEMATICAL AND COMPUTER SCIENTISTS	2,194	1,931	2,021	2,127
MATHEMATICIANS	1,435	1,220	1,200	1,167
COMPUTER SCIENTISTS	759	712	821	961
LIFE SCIENTISTS	30,203	34,766	35,536	36,394
AGRICULTURAL SCIENTISTS	4,339	6,389	6,453	6,569
BIOLOGICAL SCIENTISTS	11,883	12,351	12,889	13,660
MEDICAL SCIENTISTS	13,983	15,420	15,518	15,440
OTHER LIFE SCIENTISTS 1/	-	607	676	724
PSYCHOLOGISTS	1,820	1,353	1,385	1,301
SOCIAL SCIENTISTS	4,419	3,291	3,429	3,352
ECONOMISTS	1,532	1,170	1,155	1,173
POLITICAL SCIENTISTS	653	565	616	482
SOCIOLOGISTS	975	611	573	525
OTHER SOCIAL SCIENTISTS	1,258	945	1,084	1,170

1/ DATA NOT AVAILABLE PRIOR TO 1979.
NOTE: DETAIL MAY NOT ADD TO TOTAL BECAUSE OF ROUNDING.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-18. — MALE SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY STATUS: JANUARY 1980 AND JANUARY 1983-84

FIELD	TOTAL			FULL TIME			PART TIME		
	1980	1983	1984	1980	1983	1984	1980	1983	1984
TOTAL	262,591	283,137	288,437	210,775	220,567	224,255	51,816	62,570	64,182
ENGINEERS	32,746	36,277	37,406	25,759	27,833	28,326	6,987	8,444	9,080
AERONAUTICAL AND ASTRONAUTICAL									
ENGINEERS	1,365	1,292	1,357	1,117	1,066	1,115	248	226	242
CHEMICAL ENGINEERS	2,272	2,273	2,316	1,827	1,854	1,930	445	419	384
CIVIL ENGINEERS	5,374	6,134	5,954	4,207	4,779	4,676	1,167	1,355	1,278
ELECTRICAL ENGINEERS	8,011	9,372	10,112	6,260	7,021	7,109	1,751	2,351	3,003
MECHANICAL ENGINEERS	5,953	6,583	6,927	4,725	5,019	5,313	1,228	1,564	1,614
OTHER ENGINEERS	9,771	10,623	10,740	7,623	8,094	8,183	2,148	2,529	2,557
PHYSICAL SCIENTISTS	29,739	30,713	31,221	25,502	25,818	26,143	4,237	4,895	5,078
ASTRONOMERS	867	997	1,085	750	813	881	117	184	204
CHEMISTS	14,796	15,324	15,685	12,551	12,881	13,116	2,245	2,443	2,569
PHYSICISTS	12,355	12,843	12,873	10,831	10,904	10,951	1,524	1,939	1,922
OTHER PHYSICAL SCIENTISTS	1,721	1,549	1,578	1,370	1,220	1,195	351	329	383
ENVIRONMENTAL SCIENTISTS	8,985	9,025	9,357	7,775	7,870	8,097	1,210	1,155	1,260
ATMOSPHERIC SCIENTISTS	885	971	889	749	817	751	136	154	138
EARTH SCIENTISTS	5,988	5,869	6,016	5,156	5,108	5,261	832	761	755
OCEANOGRAPHERS	1,468	1,443	1,468	1,343	1,325	1,297	125	118	171
OTHER ENVIRONMENTAL SCIENTISTS	644	742	984	527	620	788	117	122	196
MATHEMATICAL AND COMPUTER SCIENTISTS	29,065	36,045	38,193	21,945	24,615	25,972	7,120	11,430	12,221
MATHEMATICIANS	21,463	24,270	24,554	16,738	17,361	17,516	4,725	6,909	7,038
COMPUTER SCIENTISTS	7,602	11,775	13,639	5,207	7,254	8,456	2,395	4,521	5,183
LIFE SCIENTISTS	103,072	110,784	111,717	84,054	88,375	88,764	19,018	22,409	22,953
AGRICULTURAL SCIENTISTS	14,285	14,752	14,823	13,113	13,716	13,764	1,172	1,036	1,059
BIOLOGICAL SCIENTISTS	34,301	35,748	35,890	30,497	31,546	31,726	3,804	4,202	4,164
MEDICAL SCIENTISTS	52,084	56,517	56,962	38,601	40,353	40,443	13,483	16,164	16,519
OTHER LIFE SCIENTISTS	2,402	3,767	4,042	1,843	2,760	2,831	559	1,007	1,211
PSYCHOLOGISTS	16,259	16,540	16,635	12,415	12,379	12,596	3,844	4,161	4,039
SOCIAL SCIENTISTS	42,725	43,753	43,908	33,325	33,677	34,357	9,400	10,076	9,551
ECONOMISTS	13,031	13,808	13,947	9,982	10,373	10,803	3,049	3,435	3,144
POLITICAL SCIENTISTS	9,589	9,994	9,835	7,655	7,881	7,898	1,934	2,113	1,937
SOCIOLOGISTS	10,141	9,796	9,387	7,920	7,613	7,497	2,221	2,183	1,890
OTHER SOCIAL SCIENTISTS	9,964	10,155	10,739	7,768	7,810	8,159	2,196	2,345	2,580

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-19. — FEMALE SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES
BY STATUS: JANUARY 1980 AND JANUARY 1983-84

FIELD	TOTAL			FULL TIME			PART TIME		
	1980	1983	1984	1980	1983	1984	1980	1983	1984
TOTAL	61,658	75,792	82,013	44,215	53,525	57,306	17,443	22,267	24,707
ENGINEERS	991	1,460	1,609	713	1,011	1,109	278	449	500
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	42	35	37	27	23	23	15	12	14
CHEMICAL ENGINEERS	80	137	144	59	97	113	21	40	31
CIVIL ENGINEERS	155	287	303	118	208	208	37	79	95
ELECTRICAL ENGINEERS	143	242	323	114	167	194	29	75	129
MECHANICAL ENGINEERS	121	145	145	92	93	98	29	52	47
OTHER ENGINEERS	450	614	657	303	423	473	147	191	184
PHYSICAL SCIENTISTS	3,815	4,065	4,300	2,491	2,696	2,887	1,324	1,369	1,413
ASTRONOMERS	88	98	108	68	69	71	20	29	37
CHEMISTS	2,818	3,004	3,136	1,779	1,964	2,017	1,039	1,040	1,119
PHYSICISTS	652	743	773	492	522	580	160	221	193
OTHER PHYSICAL SCIENTISTS	257	220	283	152	141	219	105	79	64
ENVIRONMENTAL SCIENTISTS	975	1,128	1,267	678	821	836	297	307	431
ATMOSPHERIC SCIENTISTS	58	93	86	44	70	54	14	23	32
EARTH SCIENTISTS	581	663	730	398	461	452	183	202	278
OCEANOGRAPHERS	195	244	299	145	203	241	50	41	58
OTHER ENVIRONMENTAL SCIENTISTS	141	128	152	91	87	89	50	41	63
MATHEMATICAL AND COMPUTER SCIENTISTS	6,892	9,621	11,089	4,085	5,326	5,968	2,807	4,295	5,121
MATHEMATICIANS	5,616	7,050	7,693	3,176	3,714	3,891	2,440	3,336	3,802
COMPUTER SCIENTISTS	1,276	2,571	3,396	909	1,612	2,077	367	959	1,319
LIFE SCIENTISTS	30,630	40,656	44,562	24,101	31,240	33,925	6,529	9,416	10,637
AGRICULTURAL SCIENTISTS	1,614	1,980	2,192	1,327	1,615	1,808	287	365	384
BIOLOGICAL SCIENTISTS	10,502	12,336	12,668	8,217	9,406	9,853	2,285	2,730	2,815
MEDICAL SCIENTISTS	15,032	17,869	18,923	11,715	13,405	14,063	3,317	4,464	4,860
OTHER LIFE SCIENTISTS	3,482	8,471	10,779	2,842	6,614	8,201	640	1,857	2,578
PSYCHOLOGISTS	4,998	7,232	7,332	4,318	4,477	4,491	2,680	2,755	2,841
SOCIAL SCIENTISTS	11,357	11,630	11,854	7,829	7,954	8,090	3,528	3,676	3,764
ECONOMISTS	1,641	1,763	1,900	1,110	1,226	1,319	531	537	581
POLITICAL SCIENTISTS	1,605	1,774	1,783	1,112	1,242	1,241	493	534	542
SOCIOLOGISTS	4,360	4,272	4,143	2,940	2,872	2,711	1,420	1,400	1,432
OTHER SOCIAL SCIENTISTS	3,751	3,819	4,028	2,667	2,614	2,819	1,084	1,205	1,209

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-20. — MALE SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS
BY STATUS: JANUARY 1980 AND JANUARY 1983-84

FIELD	TOTAL			FULL TIME			PART TIME		
	1980	1983	1984	1980	1983	1984	1980	1983	1984
TOTAL	179,168	189,742	194,290	149,792	156,815	159,467	29,376	32,927	34,823
ENGINEERS	23,642	25,026	25,870	19,862	21,016	21,567	3,780	4,010	4,303
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	1,082	983	1,053	924	850	898	158	133	155
CHEMICAL ENGINEERS	1,992	1,967	2,119	1,633	1,651	1,788	359	316	331
CIVIL ENGINEERS	3,675	4,193	4,222	3,083	3,499	3,491	592	694	731
ELECTRICAL ENGINEERS	5,360	5,872	6,201	4,573	4,961	5,155	787	911	1,046
MECHANICAL ENGINEERS	3,902	4,094	4,378	3,332	3,461	3,667	570	633	711
OTHER ENGINEERS	7,631	7,917	7,897	6,317	6,594	6,568	1,314	1,323	1,329
PHYSICAL SCIENTISTS	17,407	17,592	18,153	15,490	15,708	16,068	1,917	1,884	2,085
ASTRONOMERS	668	710	831	629	645	735	39	65	96
CHEMISTS	7,984	8,210	8,441	6,958	7,284	7,399	1,026	926	1,042
PHYSICISTS	7,624	7,863	7,994	6,978	7,073	7,219	646	790	775
OTHER PHYSICAL SCIENTISTS	1,131	809	887	925	704	715	206	103	172
ENVIRONMENTAL SCIENTISTS	6,185	6,228	6,538	5,532	5,698	5,824	653	530	714
ATMOSPHERIC SCIENTISTS	750	840	797	661	751	689	89	89	108
EARTH SCIENTISTS	3,730	3,686	3,796	3,309	3,352	3,412	421	334	384
OCEANOGRAPHERS	1,301	1,279	1,310	1,221	1,200	1,213	80	79	97
OTHER ENVIRONMENTAL SCIENTISTS	404	423	635	341	395	510	63	28	125
MATHEMATICAL AND COMPUTER SCIENTISTS	13,286	15,371	15,994	11,196	12,535	12,858	2,090	2,836	3,136
MATHEMATICIANS	9,383	10,180	10,254	8,072	8,425	8,386	1,311	1,755	1,868
COMPUTER SCIENTISTS	3,903	5,191	5,740	3,124	4,110	4,472	779	1,081	1,268
LIFE SCIENTISTS	89,251	95,829	97,439	73,086	76,969	77,712	16,165	18,860	19,727
AGRICULTURAL SCIENTISTS	12,121	12,510	12,798	11,358	11,930	12,112	763	580	686
BIOLOGICAL SCIENTISTS	24,259	25,555	25,914	22,221	23,300	23,595	2,038	2,255	2,319
MEDICAL SCIENTISTS	50,797	55,058	55,884	39,896	39,681	39,947	12,901	15,377	15,937
OTHER LIFE SCIENTISTS	2,074	2,706	2,843	1,611	2,058	2,058	463	648	785
PSYCHOLOGISTS	7,343	7,547	7,841	6,107	6,186	6,458	1,236	1,361	1,383
SOCIAL SCIENTISTS	22,054	22,149	22,455	18,519	18,703	18,980	3,535	3,446	3,475
ECONOMISTS	7,269	7,397	7,356	6,091	6,167	6,327	1,178	1,230	1,029
POLITICAL SCIENTISTS	4,628	4,811	4,690	3,810	3,989	3,911	818	822	779
SOCIOLOGISTS	4,459	4,265	4,126	3,839	3,643	3,585	620	622	541
OTHER SOCIAL SCIENTISTS	5,698	5,676	6,283	4,779	4,904	5,157	919	772	1,126

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-21. — FEMALE SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS
BY STATUS: JANUARY 1980 AND JANUARY 1983-84

FIELD	TOTAL			FULL TIME			PART TIME		
	1980	1983	1984	1980	1983	1984	1980	1983	1984
TOTAL	38,853	46,803	49,996	29,983	35,941	38,041	8,870	10,862	11,955
ENGINEERS	840	1,157	1,319	606	841	946	234	316	373
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	31	22	28	21	15	19	10	7	9
CHEMICAL ENGINEERS	78	121	130	57	83	100	21	38	30
CIVIL ENGINEERS	122	234	243	93	172	162	29	62	81
ELECTRICAL ENGINEERS	121	177	224	98	137	161	23	40	63
MECHANICAL ENGINEERS	99	94	105	77	68	70	22	26	35
OTHER ENGINEERS	389	509	589	260	366	434	129	143	155
PHYSICAL SCIENTISTS	1,832	1,906	1,974	1,283	1,408	1,453	549	498	521
ASTRONOMERS	68	69	73	56	55	56	12	14	17
CHEMISTS	1,248	1,319	1,344	821	959	966	427	360	378
PHYSICISTS	364	425	443	297	326	353	71	99	90
OTHER PHYSICAL SCIENTISTS	152	93	114	113	68	78	39	25	36
ENVIRONMENTAL SCIENTISTS	710	794	909	509	611	648	201	183	261
ATMOSPHERIC SCIENTISTS	54	89	83	40	67	53	14	22	30
EARTH SCIENTISTS	360	404	452	261	303	310	99	101	142
OCEANOGRAPHERS	186	225	271	139	188	226	47	37	45
OTHER ENVIRONMENTAL SCIENTISTS	110	76	103	69	53	59	41	23	44
MATHEMATICAL AND COMPUTER SCIENTISTS	2,358	3,054	3,300	1,627	2,085	2,252	731	969	1,048
MATHEMATICIANS	1,700	1,962	2,001	1,084	1,228	1,227	616	734	774
COMPUTER SCIENTISTS	658	1,092	1,299	543	857	1,025	115	235	274
LIFE SCIENTISTS	24,337	31,028	33,400	19,634	24,491	26,132	4,703	6,537	7,268
AGRICULTURAL SCIENTISTS	1,377	1,730	1,960	1,191	1,467	1,651	186	263	309
BIOLOGICAL SCIENTISTS	7,126	8,618	9,251	5,937	7,163	7,692	1,189	1,455	1,559
MEDICAL SCIENTISTS	13,390	16,049	16,975	10,517	12,143	12,697	2,873	3,906	4,278
OTHER LIFE SCIENTISTS	2,444	4,631	5,214	1,989	3,718	4,092	455	913	1,122
PSYCHOLOGISTS	2,886	2,939	3,625	1,942	2,105	2,108	944	834	917
SOCIAL SCIENTISTS	5,890	5,925	6,069	4,382	4,400	4,502	1,508	1,525	1,567
ECONOMISTS	842	920	908	616	695	716	226	225	192
POLITICAL SCIENTISTS	782	867	859	566	638	643	216	229	216
SOCIOLOGISTS	1,904	1,874	1,742	1,381	1,371	1,231	523	503	511
OTHER SOCIAL SCIENTISTS	2,362	2,264	2,560	1,819	1,696	1,912	543	568	648

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-22. — MALE SCIENTISTS AND ENGINEERS EMPLOYED AT PUBLIC UNIVERSITIES AND COLLEGES
BY STATUS: JANUARY 1980 AND JANUARY 1983-84

FIELD	TOTAL			FULL TIME			PART TIME		
	1980	1983	1984	1980	1983	1984	1980	1983	1984
TOTAL	181,414	193,756	197,654	147,546	154,082	156,731	33,868	39,674	40,923
ENGINEERS	23,981	26,432	27,341	18,813	20,448	21,151	5,168	5,984	6,190
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	791	804	876	645	664	740	146	140	136
CHEMICAL ENGINEERS	1,634	1,596	1,681	1,291	1,314	1,412	343	282	269
CIVIL ENGINEERS	4,281	4,871	4,811	3,365	3,860	3,867	916	1,011	944
ELECTRICAL ENGINEERS	5,264	6,061	6,275	4,021	4,572	4,624	1,243	1,489	1,651
MECHANICAL ENGINEERS	4,242	4,686	5,062	3,421	3,650	3,940	821	1,036	1,122
OTHER ENGINEERS	7,769	8,414	8,636	6,070	6,388	6,568	1,699	2,026	2,068
PHYSICAL SCIENTISTS	19,772	20,344	20,931	16,763	17,046	17,285	3,009	3,300	3,646
ASTRONOMERS	603	688	789	517	567	629	86	121	160
CHEMISTS	10,032	10,199	10,537	8,350	8,491	8,662	1,682	1,708	1,875
PHYSICISTS	7,977	8,323	8,383	6,955	7,098	7,091	1,022	1,225	1,292
OTHER PHYSICAL SCIENTISTS	1,160	1,136	1,222	941	890	903	219	246	319
ENVIRONMENTAL SCIENTISTS	7,207	7,257	7,443	6,270	6,365	6,455	937	892	988
ATMOSPHERIC SCIENTISTS	756	851	805	639	721	672	117	130	131
EARTH SCIENTISTS	4,846	4,680	4,732	4,202	4,113	4,174	644	567	558
OCEANOGRAPHERS	1,129	1,117	1,121	1,025	1,017	984	104	100	137
OTHER ENVIRONMENTAL SCIENTISTS	476	609	785	404	514	625	72	95	160
MATHEMATICAL AND COMPUTER SCIENTISTS	21,454	26,344	27,875	16,370	18,151	19,380	5,084	8,193	8,495
MATHEMATICIANS	15,911	17,770	18,167	12,432	12,809	13,142	3,479	4,961	5,025
COMPUTER SCIENTISTS	5,543	8,574	9,708	3,938	5,342	6,238	1,605	3,232	3,470
LIFE SCIENTISTS	68,077	71,842	72,436	56,526	59,242	59,156	11,551	12,600	13,280
AGRICULTURAL SCIENTISTS	13,684	14,157	14,192	12,556	13,161	13,209	1,128	996	983
BIOLOGICAL SCIENTISTS	23,291	23,629	23,501	20,698	20,833	20,726	2,593	2,796	2,775
MEDICAL SCIENTISTS	29,487	31,026	31,560	22,053	23,006	22,982	7,434	8,020	8,578
OTHER LIFE SCIENTISTS	1,615	3,030	3,183	1,219	2,242	2,239	396	788	944
PSYCHOLOGISTS	11,119	11,135	10,981	8,821	8,719	8,641	2,298	2,416	2,340
SOCIAL SCIENTISTS	29,804	30,400	30,647	23,983	24,111	24,663	5,821	6,289	5,984
ECONOMISTS	8,530	8,951	9,110	6,790	7,016	7,304	1,740	1,935	1,806
POLITICAL SCIENTISTS	4,255	4,546	4,529	5,175	5,342	5,331	1,080	1,204	1,198
SOCIOLOGISTS	7,121	6,843	6,642	5,744	5,440	5,413	1,377	1,403	1,229
OTHER SOCIAL SCIENTISTS	7,898	8,060	8,366	6,274	6,313	6,615	1,624	1,747	1,751

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 8-23. -- FEMALE SCIENTISTS AND ENGINEERS EMPLOYED AT PUBLIC UNIVERSITIES AND COLLEGES
BY STATUS: JANUARY 1980 AND JANUARY 1983-84

FIELD	TOTAL			FULL TIME			PART TIME		
	1980	1983	1984	1980	1983	1984	1980	1983	1984
TOTAL	42,613	52,573	57,170	30,626	37,351	40,023	11,987	15,222	17,147
ENGINEERS	754	1,110	1,223	531	766	845	223	344	378
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	20	21	19	14	15	13	6	6	6
CHEMICAL ENGINEERS	63	95	111	48	77	87	15	18	24
CIVIL ENGINEERS	126	224	260	98	162	176	28	62	84
ELECTRICAL ENGINEERS	85	140	204	62	104	126	23	56	78
MECHANICAL ENGINEERS	94	109	105	70	67	68	24	42	37
OTHER ENGINEERS	366	501	524	239	341	375	127	160	149
PHYSICAL SCIENTISTS	2,472	2,609	2,765	1,590	1,704	1,781	882	905	984
ASTRONOMERS	65	63	80	50	46	53	15	17	27
CHEMISTS	1,834	1,919	1,974	1,122	1,217	1,189	712	702	785
PHYSICISTS	425	472	494	317	336	364	108	136	130
OTHER PHYSICAL SCIENTISTS	148	155	217	101	105	175	47	50	42
ENVIRONMENTAL SCIENTISTS	712	866	981	494	634	647	218	232	334
ATMOSPHERIC SCIENTISTS	50	85	79	26	64	50	14	21	29
EARTH SCIENTISTS	440	497	547	307	355	345	133	142	202
OCEANOGRAPHERS	140	179	233	94	145	183	46	34	50
OTHER ENVIRONMENTAL SCIENTISTS	82	105	122	57	70	69	25	35	53
MATHEMATICAL AND COMPUTER SCIENTISTS	5,257	7,320	8,368	3,081	4,051	4,551	2,176	3,269	3,817
MATHEMATICIANS	4,263	5,353	5,799	2,357	2,783	2,910	1,906	2,570	2,889
COMPUTER SCIENTISTS	994	1,967	2,569	724	1,268	1,641	270	699	928
LIFE SCIENTISTS	20,440	27,866	30,744	16,252	21,466	23,301	4,388	6,400	7,445
AGRICULTURAL SCIENTISTS	1,565	1,905	2,107	1,287	1,549	1,733	278	356	374
BIOLOGICAL SCIENTISTS	6,719	7,833	8,043	5,115	6,037	6,085	1,604	1,796	1,958
MEDICAL SCIENTISTS	9,914	11,706	12,318	7,824	8,824	9,109	2,090	2,882	3,209
OTHER LIFE SCIENTISTS	2,442	6,422	8,278	2,026	5,056	6,374	416	1,366	1,904
PSYCHOLOGISTS	4,769	4,776	4,933	3,052	3,089	3,156	1,717	1,687	1,777
SOCIAL SCIENTISTS	8,009	8,026	8,154	5,626	5,641	5,742	2,383	2,385	2,412
ECONOMISTS	1,094	1,147	1,195	750	815	836	344	332	359
POLITICAL SCIENTISTS	1,023	1,151	1,200	729	830	843	294	321	357
SOCIOLOGISTS	2,966	2,888	2,737	2,019	2,000	1,876	947	888	861
OTHER SOCIAL SCIENTISTS	2,926	2,840	3,022	2,128	1,996	2,187	798	844	835

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 8-24. -- MALE SCIENTISTS AND ENGINEERS EMPLOYED AT PRIVATE UNIVERSITIES AND COLLEGES
BY STATUS: JANUARY 1980 AND JANUARY 1983-84

FIELD	TOTAL			FULL TIME			PART TIME		
	1980	1983	1984	1980	1983	1984	1980	1983	1984
TOTAL	81,177	89,381	90,783	63,229	66,485	67,524	17,948	22,896	23,259
ENGINEERS	8,765	9,845	10,065	6,946	7,385	7,175	1,819	2,460	2,890
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	574	488	481	472	402	375	102	86	106
CHEMICAL ENGINEERS	638	677	635	536	540	518	102	137	117
CIVIL ENGINEERS	1,093	1,263	1,143	842	919	809	251	344	334
ELECTRICAL ENGINEERS	2,747	3,311	3,837	2,239	2,449	2,485	508	862	1,352
MECHANICAL ENGINEERS	1,711	1,897	1,865	1,304	1,369	1,373	407	528	492
OTHER ENGINEERS	2,002	2,209	2,104	1,553	1,706	1,615	449	503	489
PHYSICAL SCIENTISTS	9,967	10,367	10,290	8,739	8,772	8,858	1,228	1,595	1,432
ASTRONOMERS	264	309	294	233	246	252	31	63	44
CHEMISTS	4,764	5,125	5,148	4,201	4,390	4,454	563	735	694
PHYSICISTS	4,378	4,520	4,490	3,876	3,806	3,860	502	714	630
OTHER PHYSICAL SCIENTISTS	561	413	356	429	330	292	132	83	64
ENVIRONMENTAL SCIENTISTS	1,778	1,768	1,914	1,505	1,505	1,642	273	263	272
ATMOSPHERIC SCIENTISTS	129	120	84	110	96	79	19	24	5
EARTH SCIENTISTS	1,142	1,189	1,284	954	995	1,087	188	194	197
OCEANOGRAPHERS	339	326	347	318	308	313	21	18	34
OTHER ENVIRONMENTAL SCIENTISTS	168	133	199	123	106	163	45	27	36
MATHEMATICAL AND COMPUTER SCIENTISTS	7,611	9,701	10,318	5,575	6,464	6,592	2,036	3,237	3,726
MATHEMATICIANS	5,552	6,500	6,387	4,306	4,552	4,374	1,246	1,948	2,013
COMPUTER SCIENTISTS	2,059	3,201	3,931	1,269	1,912	2,218	790	1,289	1,713
LIFE SCIENTISTS	34,995	38,942	39,281	27,528	29,133	29,608	7,467	9,809	9,673
AGRICULTURAL SCIENTISTS	601	595	631	557	555	555	44	40	76
BIOLOGICAL SCIENTISTS	11,010	12,119	12,389	9,799	10,713	11,000	1,211	1,406	1,389
MEDICAL SCIENTISTS	22,597	25,491	25,402	16,548	17,347	17,461	6,049	8,144	7,941
OTHER LIFE SCIENTISTS	787	737	859	624	518	592	163	219	267
PSYCHOLOGISTS	5,140	5,405	5,654	3,594	3,640	3,955	1,546	1,745	1,699
SOCIAL SCIENTISTS	12,921	13,353	13,261	9,342	9,566	9,694	3,579	3,787	3,567
ECONOMISTS	4,501	4,857	4,837	3,192	3,357	3,499	1,309	1,500	1,338
POLITICAL SCIENTISTS	3,334	3,448	3,306	2,480	2,539	2,567	854	909	739
SOCIOLOGISTS	3,020	2,953	2,745	2,176	2,173	2,084	844	780	641
OTHER SOCIAL SCIENTISTS	2,066	2,095	2,373	1,494	1,497	1,544	572	598	829

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-25. — FEMALE SCIENTISTS AND ENGINEERS EMPLOYED AT PRIVATE UNIVERSITIES AND COLLEGES
BY STATUS: JANUARY 1980 AND JANUARY 1983-84

FIELD	TOTAL			FULL TIME			PART TIME		
	1980	1983	1984	1980	1983	1984	1980	1983	1984
TOTAL	19,045	23,219	24,843	15,589	16,174	17,283	5,456	7,045	7,560
ENGINEERS	237	350	386	182	245	264	55	105	122
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	22	14	18	13	8	10	9	6	8
CHEMICAL ENGINEERS	17	42	33	11	20	26	6	22	7
CIVIL ENGINEERS	29	63	43	20	46	32	9	17	11
ELECTRICAL ENGINEERS	58	82	119	52	63	68	6	19	51
MECHANICAL ENGINEERS	27	36	40	22	26	30	5	10	10
OTHER ENGINEERS	84	113	133	64	82	98	20	31	35
PHYSICAL SCIENTISTS	1,343	1,456	1,535	901	992	1,106	442	464	429
ASTRONOMERS	23	35	28	18	23	18	5	12	10
CHEMISTS	984	1,085	1,162	657	747	828	327	338	334
PHYSICISTS	227	271	279	175	184	216	52	85	63
OTHER PHYSICAL SCIENTISTS	109	65	66	51	36	44	58	29	22
ENVIRONMENTAL SCIENTISTS	263	262	286	184	187	189	79	75	97
ATMOSPHERIC SCIENTISTS	8	8	7	8	6	4	0	2	3
EARTH SCIENTISTS	141	166	183	91	106	107	50	60	76
OCEANOGRAPHERS	55	65	66	51	58	58	4	7	8
OTHER ENVIRONMENTAL SCIENTISTS	59	23	30	34	17	20	25	6	10
MATHEMATICAL AND COMPUTER SCIENTISTS	1,635	2,301	2,721	1,004	1,275	1,417	631	1,026	1,304
MATHEMATICIANS	1,353	1,697	1,894	819	931	981	534	766	913
COMPUTER SCIENTISTS	282	604	827	185	344	436	97	260	391
LIFE SCIENTISTS	9,990	12,790	13,816	7,849	9,774	10,624	2,141	3,016	3,192
AGRICULTURAL SCIENTISTS	49	75	85	40	66	75	9	9	10
BIOLOGICAL SCIENTISTS	3,783	4,903	4,625	3,102	3,569	3,768	681	934	857
MEDICAL SCIENTISTS	5,118	6,163	6,605	3,891	4,581	4,954	1,227	1,582	1,651
OTHER LIFE SCIENTISTS	1,040	2,049	2,501	816	1,558	1,827	224	491	674
PSYCHOLOGISTS	2,229	2,456	2,399	1,266	1,388	1,335	963	1,063	1,064
SOCIAL SCIENTISTS	3,348	3,604	3,700	2,203	2,313	2,348	1,145	1,291	1,352
ECONOMISTS	547	616	705	360	411	483	187	205	222
POLITICAL SCIENTISTS	582	625	583	383	412	398	199	213	185
SOCIOLOGISTS	1,394	1,384	1,406	921	872	835	473	512	571
OTHER SOCIAL SCIENTISTS	825	979	1,006	539	618	632	286	361	374

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-26. — SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES
BY FIELD AND CONTROL: JANUARY 1983 AND JANUARY 1984

FIELD	TOTAL			PUBLIC			PRIVATE		
	1983	1984	PERCENT CHANGE 1983-84	1983	1984	PERCENT CHANGE 1983-84	1983	1984	PERCENT CHANGE 1983-84
TOTAL	358,929	370,450	3.2%	246,329	254,824	3.4%	112,600	115,626	2.7%
ENGINEERS	37,737	39,015	3.4	27,542	28,564	3.7	10,195	10,451	2.5
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	1,327	1,394	5.0	825	895	8.5	502	499	-.6
CHEMICAL ENGINEERS	2,410	2,460	2.1	1,691	1,792	6.0	719	668	-7.1
CIVIL ENGINEERS	6,421	6,257	-2.6	5,095	5,071	-.5	1,326	1,184	-10.6
ELECTRICAL ENGINEERS	9,614	10,435	8.5	6,221	6,479	4.1	3,393	3,956	16.6
MECHANICAL ENGINEERS	6,728	7,072	5.1	4,795	5,167	7.8	1,933	1,905	-1.4
OTHER ENGINEERS	11,237	11,397	1.4	8,915	9,160	2.7	2,322	2,237	-3.7
PHYSICAL SCIENTISTS	34,778	35,521	2.1	22,955	23,696	3.2	11,823	11,825	.0
ASTRONOMERS	1,095	1,193	8.9	751	869	15.7	344	324	-5.8
CHEMISTS	18,328	18,821	2.7	12,118	12,511	3.2	6,210	6,310	1.6
PHYSICISTS	13,586	13,646	.4	8,795	8,877	.9	4,791	4,769	-.5
OTHER PHYSICAL SCIENTISTS	1,769	1,861	5.2	1,291	1,439	11.5	478	422	-11.7
ENVIRONMENTAL SCIENTISTS	10,153	10,624	4.6	8,123	8,424	3.7	2,030	2,200	8.4
ATMOSPHERIC SCIENTISTS	1,064	975	-8.4	936	884	-5.6	128	91	-28.9
EARTH SCIENTISTS	6,532	6,746	3.3	5,177	5,279	2.0	1,355	1,467	8.3
OCEANOGRAPHERS	1,687	1,767	4.7	1,296	1,354	4.5	391	413	5.6
OTHER ENVIRONMENTAL SCIENTISTS	870	1,136	30.6	714	907	27.0	156	229	46.8
MATHEMATICAL AND COMPUTER SCIENTISTS	45,666	49,282	7.9	33,664	36,243	7.7	12,002	13,039	8.6
MATHEMATICIANS	31,320	32,247	3.0	23,123	23,966	3.6	8,197	8,281	1.0
COMPUTER SCIENTISTS	14,346	17,035	18.7	10,541	12,277	16.5	3,805	4,758	25.0
LIFE SCIENTISTS	151,440	156,279	3.2	99,708	103,182	3.5	51,732	53,097	2.6
AGRICULTURAL SCIENTISTS	16,732	17,015	1.7	16,062	16,299	1.5	670	716	6.9
BIOLOGICAL SCIENTISTS	48,084	48,558	1.0	31,462	31,544	.3	16,622	17,014	2.4
MEDICAL SCIENTISTS	74,386	75,885	2.0	42,732	43,878	2.7	31,654	32,007	1.1
OTHER LIFE SCIENTISTS	12,238	14,821	21.1	9,452	11,461	21.3	2,786	3,360	20.6
PSYCHOLOGISTS	23,772	23,967	.8	15,911	15,914	.0	7,861	8,053	2.4
SOCIAL SCIENTISTS	55,383	55,762	.7	38,426	38,801	1.0	16,957	16,961	.0
ECONOMISTS	15,971	15,847	-1.8	10,098	10,305	2.0	5,473	5,542	1.3
POLITICAL SCIENTISTS	11,770	11,618	-1.3	7,697	7,729	.4	4,073	3,889	-4.5
SOCIOLOGISTS	14,068	13,530	-3.8	9,731	9,379	-3.6	4,337	4,151	-4.3
OTHER SOCIAL SCIENTISTS	13,974	14,767	5.7	10,900	11,388	4.5	3,074	3,379	9.9

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-27. — FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY FIELD AND CONTROL: JANUARY 1983 AND JANUARY 1984

FIELD	TOTAL			PUBLIC			PRIVATE		
	1983	1984	PERCENT CHANGE 1983-84	1983	1984	PERCENT CHANGE 1983-84	1983	1984	PERCENT CHANGE 1983-84
TOTAL	274,092	281,561	2.7%	191,433	196,754	2.8%	82,659	84,807	2.6%
ENGINEERS	28,844	29,435	2.0	21,214	21,996	3.7	7,630	7,439	-2.5
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	1,089	1,138	4.5	679	753	10.9	410	385	-6.1
CHEMICAL ENGINEERS	1,951	2,043	4.7	1,291	1,499	7.8	540	544	-2.9
CIVIL ENGINEERS	4,987	4,884	-2.1	4,022	4,043	.5	965	841	-12.8
ELECTRICAL ENGINEERS	7,188	7,303	1.6	4,676	4,750	1.6	2,512	2,553	1.6
MECHANICAL ENGINEERS	5,112	5,411	5.8	3,717	4,008	7.8	1,395	1,403	.6
OTHER ENGINEERS	8,517	8,656	1.6	6,729	6,943	3.2	1,788	1,713	-4.2
PHYSICAL SCIENTISTS	28,514	29,030	1.8	18,750	19,066	1.7	9,764	9,964	2.0
ASTRONOMERS	882	952	7.9	613	682	11.3	269	270	.4
CHEMISTS	14,845	15,133	1.9	9,708	9,851	1.5	5,137	5,282	2.8
PHYSICISTS	11,426	11,531	.9	7,434	7,455	.3	3,992	4,076	2.1
OTHER PHYSICAL SCIENTISTS	1,361	1,414	3.9	995	1,078	8.3	366	336	-8.2
ENVIRONMENTAL SCIENTISTS	8,691	8,933	2.8	6,999	7,102	1.5	1,692	1,831	8.2
ATMOSPHERIC SCIENTISTS	887	805	-9.2	785	722	-8.0	102	83	-18.6
EARTH SCIENTISTS	5,549	5,713	2.6	4,468	4,519	1.1	1,101	1,194	8.4
OCEANOGRAPHERS	1,528	1,538	.7	1,162	1,167	.4	366	371	1.4
OTHER ENVIRONMENTAL SCIENTISTS	707	877	24.0	584	694	18.8	123	183	48.8
MATHEMATICAL AND COMPUTER SCIENTISTS	29,941	31,940	6.7	22,202	23,931	7.8	7,739	8,009	3.5
MATHEMATICIANS	21,075	21,407	1.6	15,592	16,052	3.0	5,483	5,355	-2.3
COMPUTER SCIENTISTS	8,866	10,533	18.8	6,610	7,879	19.2	2,256	2,654	17.6
LIFE SCIENTISTS	119,615	122,689	2.6	80,708	82,457	2.2	38,907	40,232	3.4
AGRICULTURAL SCIENTISTS	15,331	15,572	1.6	14,710	14,942	1.6	621	630	1.4
BIOLOGICAL SCIENTISTS	41,152	41,579	1.0	26,870	26,811	-.2	14,282	14,768	3.4
MEDICAL SCIENTISTS	53,758	54,506	1.4	31,830	32,091	.8	21,928	22,415	2.2
OTHER LIFE SCIENTISTS	9,374	11,032	17.7	7,298	8,613	18.0	2,076	2,419	16.5
PSYCHOLOGISTS	16,856	17,087	1.4	11,808	11,797	-.1	5,048	5,290	4.8
SOCIAL SCIENTISTS	41,631	42,447	2.0	29,752	30,405	2.2	11,879	12,042	1.4
ECONOMISTS	11,599	12,122	4.5	7,831	8,140	3.9	3,768	3,982	5.7
POLITICAL SCIENTISTS	9,123	9,139	.2	6,172	6,174	.0	2,951	2,965	.5
SOCIOLOGISTS	10,485	10,208	-2.6	7,440	7,289	-2.0	3,045	2,919	-4.1
OTHER SOCIAL SCIENTISTS	10,424	10,978	5.3	8,309	8,802	5.9	2,115	2,176	2.9

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-28. — PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY FIELD AND CONTROL: JANUARY 1983 AND JANUARY 1984

FIELD	TOTAL			PUBLIC			PRIVATE		
	1983	1984	PERCENT CHANGE 1983-84	1983	1984	PERCENT CHANGE 1983-84	1983	1984	PERCENT CHANGE 1983-84
TOTAL	84,837	88,889	4.8%	54,896	58,070	5.8%	29,941	30,819	2.9%
ENGINEERS	8,893	9,580	7.7	6,328	6,568	3.8	2,565	3,012	17.4
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	238	256	7.6	146	142	-2.7	92	114	23.9
CHEMICAL ENGINEERS	459	417	-9.2	300	293	-2.3	159	124	-22.0
CIVIL ENGINEERS	1,434	1,373	-4.3	1,073	1,028	-4.2	361	345	-4.4
ELECTRICAL ENGINEERS	2,426	3,132	29.1	1,545	1,729	11.9	881	1,403	59.3
MECHANICAL ENGINEERS	1,616	1,661	2.8	1,078	1,159	7.5	538	502	-6.7
OTHER ENGINEERS	2,720	2,741	.8	2,186	2,217	1.4	534	524	-1.9
PHYSICAL SCIENTISTS	6,264	6,491	3.6	4,205	4,630	10.1	2,059	1,861	-9.6
ASTRONOMERS	213	241	13.1	138	187	35.5	75	54	-28.0
CHEMISTS	3,483	3,688	5.9	2,410	2,660	10.4	1,073	1,028	-4.2
PHYSICISTS	2,160	2,115	-2.1	1,361	1,422	4.5	799	693	-13.3
OTHER PHYSICAL SCIENTISTS	408	447	9.6	296	361	22.0	112	86	-23.2
ENVIRONMENTAL SCIENTISTS	1,462	1,691	15.7	1,124	1,322	17.6	338	369	9.2
ATMOSPHERIC SCIENTISTS	177	170	-4.0	151	142	-7.3	26	8	-69.2
EARTH SCIENTISTS	963	1,033	7.3	709	760	7.2	254	273	7.5
OCEANOGRAPHERS	159	229	44.0	134	187	39.6	25	42	68.0
OTHER ENVIRONMENTAL SCIENTISTS	163	259	58.9	130	213	63.8	33	46	39.4
MATHEMATICAL AND COMPUTER SCIENTISTS	15,725	17,342	10.3	11,462	12,312	7.4	4,263	5,030	18.0
MATHEMATICIANS	10,245	10,840	5.8	7,531	7,914	5.1	2,714	2,924	7.8
COMPUTER SCIENTISTS	5,480	6,502	18.6	3,931	4,398	11.9	1,549	2,104	35.8
LIFE SCIENTISTS	31,825	33,590	5.5	19,000	20,725	9.1	12,825	12,865	.3
AGRICULTURAL SCIENTISTS	1,401	1,443	3.0	1,352	1,357	.4	49	86	75.5
BIOLOGICAL SCIENTISTS	4,932	4,979	.7	4,592	4,733	3.1	2,340	2,246	-4.0
MEDICAL SCIENTISTS	20,628	21,379	3.6	10,902	11,787	8.1	9,726	9,592	-1.4
OTHER LIFE SCIENTISTS	2,864	3,789	32.3	2,154	2,848	32.2	710	941	32.5
PSYCHOLOGISTS	6,916	6,880	-.5	4,103	4,117	.3	2,813	2,763	-1.8
SOCIAL SCIENTISTS	13,752	13,315	-3.2	8,674	8,396	-3.2	5,078	4,919	-3.1
ECONOMISTS	3,972	3,725	-6.2	2,267	2,165	-4.5	1,705	1,560	-8.5
POLITICAL SCIENTISTS	2,647	2,479	-6.3	1,525	1,555	2.0	1,122	924	-17.6
SOCIOLOGISTS	3,583	3,322	-7.3	2,291	2,090	-8.8	1,292	1,232	-4.6
OTHER SOCIAL SCIENTISTS	3,550	3,789	6.7	2,591	2,586	-.2	959	1,203	25.4

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-29. -- SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS
BY FIELD AND CONTROL: JANUARY 1983 AND JANUARY 1984

FIELD	TOTAL			PUBLIC			PRIVATE		
	1983	1984	PERCENT CHANGE 1983-84	1983	1984	PERCENT CHANGE 1983-84	1983	1984	PERCENT CHANGE 1983-84
TOTAL	236,545	244,286	3.3%	158,944	164,306	3.4%	77,601	79,980	3.1%
ENGINEERS	26,183	27,189	3.8	18,169	18,969	4.4	8,014	8,220	2.6
AERONAUTICAL AND ASTRONAUTICAL									
ENGINEERS	1,005	1,081	7.6	580	651	12.2	425	430	1.2
CHEMICAL ENGINEERS	2,088	2,249	7.7	1,468	1,629	11.0	620	620	.0
CIVIL ENGINEERS	4,327	4,465	.9	3,436	3,526	2.6	891	939	5.2
ELECTRICAL ENGINEERS	6,049	6,425	6.2	3,431	3,642	6.1	2,618	2,783	6.3
MECHANICAL ENGINEERS	4,188	4,483	7.0	2,848	3,067	7.7	1,340	1,416	5.7
OTHER ENGINEERS	8,426	8,486	.7	6,406	6,454	.7	2,020	2,032	.6
PHYSICAL SCIENTISTS	19,498	20,127	3.2	12,751	13,329	4.5	6,747	6,798	.8
ASTRONOMERS	779	904	16.0	512	642	25.4	267	262	-1.9
CHEMISTS	9,529	9,785	2.7	6,439	6,611	2.7	3,090	3,174	2.7
PHYSICISTS	8,288	8,437	1.8	5,224	5,395	3.3	3,064	3,042	-.7
OTHER PHYSICAL SCIENTISTS	902	1,001	11.0	576	681	18.2	326	320	-1.8
ENVIRONMENTAL SCIENTISTS	7,022	7,447	6.1	5,621	5,881	4.6	1,401	1,566	11.8
ATMOSPHERIC SCIENTISTS	929	880	-5.3	819	799	-2.4	110	81	-26.4
EARTH SCIENTISTS	4,090	4,248	3.9	3,261	3,306	1.4	829	942	13.6
OCEANOGRAPHERS	1,504	1,581	5.1	1,129	1,190	5.4	375	391	4.3
OTHER ENVIRONMENTAL SCIENTISTS	499	738	47.9	412	586	42.2	87	152	74.7
MATHEMATICAL AND COMPUTER SCIENTISTS	18,425	19,294	4.7	13,067	13,824	5.8	5,358	5,470	2.1
MATHEMATICIANS	12,142	12,255	.9	8,703	8,922	2.5	3,439	3,333	-3.1
COMPUTER SCIENTISTS	6,283	7,039	12.0	4,364	4,902	12.3	1,919	2,137	11.4
LIFE SCIENTISTS	126,857	130,839	3.1	82,261	84,676	2.9	44,596	46,163	3.5
AGRICULTURAL SCIENTISTS	14,240	14,758	3.6	13,777	14,285	3.7	463	473	2.2
BIOLOGICAL SCIENTISTS	34,173	35,165	2.9	22,090	22,379	1.3	12,083	12,786	5.8
MEDICAL SCIENTISTS	71,107	72,859	2.5	40,588	41,604	2.5	30,519	31,255	2.4
OTHER LIFE SCIENTISTS	7,337	8,057	9.8	5,806	6,408	10.4	1,531	1,649	7.7
PSYCHOLOGISTS	10,486	10,866	3.6	6,954	7,078	1.8	3,532	3,788	7.2
SOCIAL SCIENTISTS	28,074	28,524	1.6	20,121	20,549	2.1	7,953	7,975	.3
ECONOMISTS	8,317	8,264	-.6	5,747	5,831	1.5	2,570	2,433	-5.3
POLITICAL SCIENTISTS	5,678	5,549	-2.3	3,733	3,750	.5	1,945	1,799	-7.5
SOCIOLOGISTS	6,139	5,868	-4.4	4,538	4,307	-5.1	1,601	1,561	-2.5
OTHER SOCIAL SCIENTISTS	7,940	8,843	11.4	6,103	6,661	9.1	1,837	2,182	18.8

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-30. -- FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS
BY FIELD AND CONTROL: JANUARY 1983 AND JANUARY 1984

FIELD	TOTAL			PUBLIC			PRIVATE		
	1983	1984	PERCENT CHANGE 1983-84	1983	1984	PERCENT CHANGE 1983-84	1983	1984	PERCENT CHANGE 1983-84
TOTAL	192,756	197,508	2.5%	133,528	136,067	1.9%	59,228	61,441	3.7%
ENGINEERS	21,857	22,513	3.0	15,539	16,059	3.3	6,318	6,454	2.2
AERONAUTICAL AND ASTRONAUTICAL									
ENGINEERS	865	917	6.0	518	577	11.4	347	340	-2.0
CHEMICAL ENGINEERS	1,734	1,888	8.9	1,238	1,365	10.3	496	523	5.4
CIVIL ENGINEERS	3,671	3,653	-.5	2,916	2,957	1.4	755	696	-7.8
ELECTRICAL ENGINEERS	5,098	5,316	4.3	3,040	3,152	3.7	2,058	2,164	5.2
MECHANICAL ENGINEERS	3,529	3,737	5.9	2,480	2,612	5.3	1,049	1,125	7.2
OTHER ENGINEERS	6,960	7,002	.6	5,347	5,396	.9	1,613	1,606	-.4
PHYSICAL SCIENTISTS	17,116	17,521	2.4	11,235	11,472	2.1	5,881	6,049	2.9
ASTRONOMERS	700	791	13.0	477	561	17.6	223	230	3.1
CHEMISTS	8,243	8,365	1.5	5,533	5,534	.0	2,710	2,831	4.5
PHYSICISTS	7,399	7,572	2.3	4,723	4,846	2.6	2,676	2,726	1.9
OTHER PHYSICAL SCIENTISTS	774	793	2.5	502	531	5.8	272	262	-3.7
ENVIRONMENTAL SCIENTISTS	6,309	6,472	2.6	5,060	5,104	.9	1,249	1,368	9.5
ATMOSPHERIC SCIENTISTS	818	742	-9.3	720	666	-7.5	98	76	-22.4
EARTH SCIENTISTS	3,655	3,732	2.1	2,933	2,915	-.6	722	807	11.8
OCEANOGRAPHERS	1,388	1,439	3.7	1,030	1,072	4.1	358	367	2.5
OTHER ENVIRONMENTAL SCIENTISTS	448	569	27.0	377	451	19.6	71	118	66.2
MATHEMATICAL AND COMPUTER SCIENTISTS	14,620	15,110	3.4	10,863	11,344	4.4	3,757	3,766	.2
MATHEMATICIANS	9,553	9,613	-.6	7,194	7,265	1.0	2,459	2,348	-4.5
COMPUTER SCIENTISTS	4,967	5,497	10.7	3,669	4,079	11.2	1,298	1,418	9.2
LIFE SCIENTISTS	101,460	103,844	2.3	67,592	68,615	1.5	33,868	35,229	4.0
AGRICULTURAL SCIENTISTS	13,397	13,763	2.7	12,945	13,309	2.8	452	454	.4
BIOLOGICAL SCIENTISTS	30,463	31,287	2.7	19,676	19,830	.8	10,787	11,457	6.2
MEDICAL SCIENTISTS	51,824	52,644	1.6	30,427	30,648	.7	21,397	21,996	2.8
OTHER LIFE SCIENTISTS	5,776	6,150	6.5	4,544	4,828	6.3	1,232	1,322	7.3
PSYCHOLOGISTS	8,291	8,566	3.3	5,928	5,900	-.5	2,363	2,666	12.8
SOCIAL SCIENTISTS	23,103	23,482	1.6	17,311	17,573	1.5	5,792	5,909	2.0
ECONOMISTS	6,862	7,043	2.6	5,018	5,141	2.5	1,844	1,902	3.1
POLITICAL SCIENTISTS	4,627	4,554	-1.6	3,227	3,209	-.6	1,400	1,345	-3.9
SOCIOLOGISTS	5,014	4,816	-3.9	3,854	3,665	-4.9	1,160	1,151	-.8
OTHER SOCIAL SCIENTISTS	6,600	7,069	7.1	5,212	5,558	6.6	1,388	1,511	8.9

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 8-31. — PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS
BY FIELD AND CONTROL: JANUARY 1983 AND JANUARY 1984

FIELD	TOTAL			PUBLIC			PRIVATE		
	1983	1984	PERCENT CHANGE 1983-84	1983	1984	PERCENT CHANGE 1983-84	1983	1984	PERCENT CHANGE 1983-84
TOTAL	43,789	46,778	6.8%	25,416	28,239	11.1%	18,373	18,539	0.9%
ENGINEERS	4,326	4,676	8.1	2,630	2,910	10.6	1,696	1,766	4.1
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	140	164	17.1	62	74	19.4	78	90	15.4
CHEMICAL ENGINEERS	354	361	2.0	230	264	14.8	124	97	-21.8
CIVIL ENGINEERS	794	812	2.3	520	569	9.4	274	243	-11.3
ELECTRICAL ENGINEERS	991	1,109	12.1	591	690	16.8	400	419	4.8
MECHANICAL ENGINEERS	699	746	6.7	368	425	15.5	331	321	-3.0
OTHER ENGINEERS	1,466	1,484	1.2	1,059	1,058	-0.1	407	426	4.7
PHYSICAL SCIENTISTS	2,382	2,606	9.4	1,516	1,857	22.5	866	749	-13.5
ASTRONOMERS	79	113	43.0	35	81	131.4	44	32	-27.3
CHEMISTS	1,284	1,420	10.4	906	1,077	18.9	380	343	-9.7
PHYSICISTS	889	865	-2.7	501	549	9.6	388	316	-18.6
OTHER PHYSICAL SCIENTISTS	128	208	62.5	74	150	102.7	54	58	7.4
ENVIRONMENTAL SCIENTISTS	713	975	36.7	561	777	38.5	152	198	30.3
ATMOSPHERIC SCIENTISTS	111	138	24.3	99	133	34.3	12	5	-58.3
EARTH SCIENTISTS	435	524	20.9	328	391	19.2	107	135	26.2
OCEANOGRAPHERS	116	142	22.4	99	118	19.2	17	24	41.2
OTHER ENVIRONMENTAL SCIENTISTS	51	169	231.4	35	135	285.7	16	34	112.5
MATHEMATICAL AND COMPUTER SCIENTISTS	3,805	4,184	10.0	2,204	2,480	12.5	1,601	1,704	6.4
MATHEMATICIANS	2,489	2,642	6.1	1,509	1,657	9.8	980	985	0.5
COMPUTER SCIENTISTS	1,316	1,542	17.2	695	823	18.4	621	719	15.8
LIFE SCIENTISTS	25,397	26,995	6.3	14,669	16,061	9.5	10,728	10,934	1.9
AGRICULTURAL SCIENTISTS	843	995	18.0	832	976	17.3	11	19	72.7
BIOLOGICAL SCIENTISTS	3,710	3,978	7.2	2,414	2,549	5.6	1,296	1,329	2.5
MEDICAL SCIENTISTS	19,283	20,215	4.8	10,161	10,956	7.8	9,122	9,259	1.5
OTHER LIFE SCIENTISTS	1,561	1,907	22.2	1,262	1,580	25.2	299	327	9.4
PSYCHOLOGISTS	2,195	2,300	4.8	1,026	1,178	14.8	1,169	1,122	-4.0
SOCIAL SCIENTISTS	4,971	5,042	1.4	2,810	2,976	5.9	2,161	2,066	-4.4
ECONOMISTS	1,455	1,221	-16.1	729	690	-5.3	726	531	-26.9
POLITICAL SCIENTISTS	1,051	995	-5.3	506	541	6.9	545	454	-16.7
SOCIOLOGISTS	1,125	1,052	-6.5	684	642	-6.1	441	410	-7.0
OTHER SOCIAL SCIENTISTS	1,340	1,774	32.4	891	1,103	23.8	449	671	49.4

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 8-32. — FULL-TIME-EQUIVALENT SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES
BY FIELD AND CONTROL: JANUARY 1983 AND JANUARY 1984

FIELD	TOTAL			PUBLIC			PRIVATE		
	1983	1984	PERCENT CHANGE 1983-84	1983	1984	PERCENT CHANGE 1983-84	1983	1984	PERCENT CHANGE 1983-84
TOTAL	306,442	320,292	4.5%	212,367	224,108	5.5%	94,075	96,184	2.2%
ENGINEERS	32,092	35,979	12.1	23,682	27,566	16.4	8,410	8,413	.0
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	1,156	1,235	6.8	723	821	13.6	433	414	-4.4
CHEMICAL ENGINEERS	2,115	2,181	3.1	1,513	1,601	5.8	602	580	-3.7
CIVIL ENGINEERS	5,559	5,644	1.5	4,468	4,692	5.0	1,091	952	-12.7
ELECTRICAL ENGINEERS	8,060	9,930	23.2	5,278	6,919	31.1	2,782	3,011	8.2
MECHANICAL ENGINEERS	5,685	6,786	19.4	4,124	5,224	26.7	1,561	1,562	.1
OTHER ENGINEERS	9,521	10,204	7.2	7,578	8,309	9.6	1,943	1,895	-2.5
PHYSICAL SCIENTISTS	31,211	31,818	1.9	20,600	21,173	2.8	10,611	10,645	.3
ASTRONOMERS	960	1,048	9.2	662	755	14.7	298	293	-1.7
CHEMISTS	16,395	16,739	2.1	10,797	11,069	2.5	5,598	5,670	1.3
PHYSICISTS	12,313	12,373	.5	8,009	8,050	.5	4,304	4,323	.4
OTHER PHYSICAL SCIENTISTS	1,541	1,662	7.9	1,131	1,300	14.9	410	362	-11.7
ENVIRONMENTAL SCIENTISTS	9,346	9,616	2.9	7,489	7,630	1.9	1,857	1,986	6.9
ATMOSPHERIC SCIENTISTS	970	864	-10.9	858	779	-9.2	112	85	-24.1
EARTH SCIENTISTS	6,001	6,122	2.0	4,775	4,815	.8	1,226	1,307	6.6
OCEANOGRAPHERS	1,591	1,617	1.2	1,219	1,227	.7	379	390	2.9
OTHER ENVIRONMENTAL SCIENTISTS	775	1,012	30.6	635	807	27.1	140	205	46.4
MATHEMATICAL AND COMPUTER SCIENTISTS	36,253	39,024	7.6	24,745	29,009	17.2	11,508	10,015	-12.9
MATHEMATICIANS	25,352	25,964	2.4	18,732	19,439	3.8	6,620	6,525	-1.4
COMPUTER SCIENTISTS	10,902	13,059	19.8	8,012	9,570	19.4	2,890	3,489	20.7
LIFE SCIENTISTS	131,152	135,211	3.1	87,445	90,289	3.3	43,707	44,922	2.8
AGRICULTURAL SCIENTISTS	16,066	15,998	-.4	15,417	15,329	-.6	649	669	3.1
BIOLOGICAL SCIENTISTS	44,156	44,727	1.3	28,798	28,973	.6	15,358	15,754	2.6
MEDICAL SCIENTISTS	60,607	61,871	2.1	35,266	36,136	2.5	25,341	25,735	1.6
OTHER LIFE SCIENTISTS	10,327	12,615	22.2	7,966	9,851	23.7	2,361	2,764	17.1
PSYCHOLOGISTS	19,441	20,553	5.7	13,326	14,222	6.7	6,115	6,331	3.5
SOCIAL SCIENTISTS	46,943	48,094	2.5	33,078	34,219	3.4	13,865	13,875	.1
ECONOMISTS	13,096	13,494	3.0	8,664	8,906	2.8	4,432	4,588	3.5
POLITICAL SCIENTISTS	10,131	10,169	.4	6,778	6,872	1.4	3,353	3,297	-1.7
SOCIOLOGISTS	11,926	12,083	1.3	8,351	8,674	3.9	3,575	3,409	-4.6
OTHER SOCIAL SCIENTISTS	11,789	12,349	4.8	9,285	9,766	5.2	2,504	2,583	3.2

NOTE: DETAIL MAY NOT ADD TO TOTAL BECAUSE OF ROUNDING.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-33. — FULL-TIME-EQUIVALENT SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS
BY FIELD AND CONTROL: JANUARY 1983 AND JANUARY 1984

FIELD	TOTAL			PUBLIC			PRIVATE		
	1983	1984	PERCENT CHANGE 1983-84	1983	1984	PERCENT CHANGE 1983-84	1983	1984	PERCENT CHANGE 1983-84
TOTAL	208,243	214,385	2.9%	142,523	146,453	2.8%	65,720	67,932	3.4%
ENGINEERS	23,312	24,117	3.5	16,568	17,140	3.5	6,744	6,977	3.5
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	903	964	6.8	536	604	12.7	367	360	-1.9
CHEMICAL ENGINEERS	1,854	2,008	8.3	1,333	1,456	9.2	521	552	6.0
CIVIL ENGINEERS	3,945	3,952	-3	3,145	3,189	1.4	820	763	-7.0
ELECTRICAL ENGINEERS	5,382	5,688	5.7	3,179	3,320	4.4	2,203	2,368	7.5
MECHANICAL ENGINEERS	3,725	3,964	6.4	2,611	2,782	6.5	1,114	1,182	6.1
OTHER ENGINEERS	7,485	7,541	.7	5,765	5,789	.4	1,720	1,752	1.9
PHYSICAL SCIENTISTS	18,033	18,626	3.3	11,904	12,351	3.8	6,129	6,275	2.4
ASTRONOMERS	724	831	14.8	484	588	21.5	240	243	1.2
CHEMISTS	8,767	8,991	2.6	5,944	6,052	1.8	2,823	2,939	4.1
PHYSICISTS	7,706	7,878	2.2	4,930	5,059	2.6	2,776	2,819	1.5
OTHER PHYSICAL SCIENTISTS	837	927	10.8	546	652	19.4	291	275	-5.5
ENVIRONMENTAL SCIENTISTS	6,625	6,857	3.5	5,312	5,407	1.8	1,314	1,450	10.4
ATMOSPHERIC SCIENTISTS	870	788	-9.4	769	711	-7.5	101	77	-23.8
EARTH SCIENTISTS	3,847	3,928	2.1	3,079	3,065	-.5	768	863	12.4
OCEANOGRAPHERS	1,431	1,476	3.1	1,066	1,100	3.2	365	376	3.0
OTHER ENVIRONMENTAL SCIENTISTS	476	665	39.7	397	531	33.8	79	134	69.6
MATHEMATICAL AND COMPUTER SCIENTISTS	16,044	16,671	3.9	11,699	12,327	5.4	4,345	4,344	.0
MATHEMATICIANS	10,602	10,629	.3	7,778	7,932	2.0	2,824	2,697	-4.5
COMPUTER SCIENTISTS	5,442	6,042	11.0	3,921	4,395	12.1	1,521	1,647	8.3
LIFE SCIENTISTS	110,337	113,338	2.7	72,476	74,180	2.4	37,861	39,158	3.4
AGRICULTURAL SCIENTISTS	13,890	14,008	.8	13,430	13,540	.8	460	468	1.7
BIOLOGICAL SCIENTISTS	31,969	33,039	3.3	20,579	20,989	2.0	11,390	12,050	5.8
MEDICAL SCIENTISTS	58,259	59,557	2.2	33,593	34,309	2.1	24,666	25,248	2.4
OTHER LIFE SCIENTISTS	6,220	6,734	8.3	4,875	5,347	9.6	1,345	1,392	3.5
PSYCHOLOGISTS	9,027	9,465	4.9	6,263	6,358	1.5	2,764	3,107	12.4
SOCIAL SCIENTISTS	24,863	25,311	1.8	18,300	18,690	2.1	6,563	6,621	.9
ECONOMISTS	7,338	7,431	1.3	5,250	5,362	2.1	2,088	2,069	-.9
POLITICAL SCIENTISTS	4,983	4,899	-1.7	3,418	3,407	-.3	1,565	1,492	-4.7
SOCIOLOGISTS	5,424	5,213	-3.9	4,091	3,905	-4.5	1,333	1,308	-1.9
OTHER SOCIAL SCIENTISTS	7,119	7,768	9.1	5,542	6,016	8.6	1,577	1,752	11.1

NOTE: DETAIL MAY NOT ADD TO TOTAL BECAUSE OF ROUNDING.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-34. — FULL-TIME-EQUIVALENT SCIENTISTS AND ENGINEERS EMPLOYED IN RESEARCH AND DEVELOPMENT AT UNIVERSITIES AND COLLEGES
BY FIELD AND CONTROL: JANUARY 1983 AND JANUARY 1984

FIELD	TOTAL			PUBLIC			PRIVATE		
	1983	1984	PERCENT CHANGE 1983-84	1983	1984	PERCENT CHANGE 1983-84	1983	1984	PERCENT CHANGE 1983-84
TOTAL	60,594	61,855	2.1%	38,869	40,098	3.2%	21,725	21,756	0.1%
ENGINEERS	7,048	7,158	1.6	4,006	4,135	3.2	3,042	3,023	-.6
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	323	319	-1.2	142	143	.7	181	176	-2.8
CHEMICAL ENGINEERS	536	569	6.2	342	388	13.5	194	181	-6.7
CIVIL ENGINEERS	769	829	7.8	544	634	16.5	225	195	-13.3
ELECTRICAL ENGINEERS	1,902	1,989	4.6	756	765	1.2	1,146	1,224	6.8
MECHANICAL ENGINEERS	892	941	5.5	462	491	6.3	430	450	4.7
OTHER ENGINEERS	2,630	2,510	-4.6	1,764	1,713	-2.9	866	797	-8.0
PHYSICAL SCIENTISTS	7,112	7,531	5.9	4,100	4,523	10.3	3,012	3,008	-.1
ASTRONOMERS	405	446	10.1	260	298	14.6	145	148	2.1
CHEMISTS	3,094	3,276	5.9	1,786	1,934	8.3	1,308	1,342	2.6
PHYSICISTS	3,062	3,099	1.2	1,644	1,705	3.7	1,418	1,394	-1.7
OTHER PHYSICAL SCIENTISTS	552	709	28.4	410	586	42.9	142	123	-13.4
ENVIRONMENTAL SCIENTISTS	3,044	3,053	.3	2,373	2,361	-.5	671	692	3.1
ATMOSPHERIC SCIENTISTS	545	485	-11.0	442	442	0.0	56	43	-23.2
EARTH SCIENTISTS	1,300	1,286	-1.1	1,013	988	-2.5	287	298	3.8
OCEANOGRAPHERS	964	980	1.7	668	678	1.5	296	302	2.0
OTHER ENVIRONMENTAL SCIENTISTS	237	301	27.0	204	252	23.5	33	49	48.5
MATHEMATICAL AND COMPUTER SCIENTISTS	2,209	2,299	4.1	1,168	1,287	10.2	1,041	1,012	-2.8
MATHEMATICIANS	1,312	1,282	-2.3	644	671	4.2	668	611	-8.5
COMPUTER SCIENTISTS	897	1,017	13.4	524	615	17.4	373	402	7.8
LIFE SCIENTISTS	36,019	36,806	2.2	23,809	24,233	1.8	12,210	12,573	3.0
AGRICULTURAL SCIENTISTS	6,559	6,701	2.2	6,349	6,439	1.4	210	202	-3.8
BIOLOGICAL SCIENTISTS	13,230	13,907	5.1	7,801	8,167	4.7	5,429	5,740	5.7
MEDICAL SCIENTISTS	15,535	15,450	-.5	9,192	9,064	-1.4	6,343	6,386	.7
OTHER LIFE SCIENTISTS	698	747	7.0	469	504	7.5	229	243	6.1
PSYCHOLOGISTS	1,482	1,394	-5.9	866	864	-.2	616	530	-14.0
SOCIAL SCIENTISTS	3,678	3,613	-1.8	2,549	2,695	5.7	1,129	918	-18.7
ECONOMISTS	1,204	1,221	1.4	901	957	6.2	303	264	-12.9
POLITICAL SCIENTISTS	672	552	-17.9	416	363	-12.7	256	189	-26.2
SOCIOLOGISTS	650	605	-6.9	446	431	-3.4	204	174	-14.7
OTHER SOCIAL SCIENTISTS	1,151	1,234	7.2	785	945	20.4	366	289	-21.0

NOTE: DETAIL MAY NOT ADD TO TOTAL BECAUSE OF ROUNDING.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-35. — FULL-TIME-EQUIVALENT SCIENTISTS AND ENGINEERS EMPLOYED IN RESEARCH AND DEVELOPMENT AT DOCTORATE-GRANTING INSTITUTIONS BY FIELD AND CONTROL: JANUARY 1983 AND JANUARY 1984

FIELD	TOTAL			PUBLIC			PRIVATE		
	1983	1984	PERCENT CHANGE 1983-84	1983	1984	PERCENT CHANGE 1983-84	1983	1984	PERCENT CHANGE 1983-84
TOTAL	59,032	60,260	2.1%	37,719	38,828	2.9%	21,313	21,432	0.6%
ENGINEERS	6,930	7,081	2.2	3,935	4,087	3.9	2,995	2,994	.0
AERONAUTICAL AND ASTRONAUTICAL									
ENGINEERS	316	314	-4	137	139	1.5	179	175	-2.2
CHEMICAL ENGINEERS	527	566	7.4	336	385	14.6	191	181	-5.2
CIVIL ENGINEERS	753	812	7.8	533	590	10.7	220	192	-12.7
ELECTRICAL ENGINEERS	1,868	1,964	5.1	737	755	2.4	1,131	1,209	6.9
MECHANICAL ENGINEERS	863	927	7.4	443	482	8.8	420	445	6.0
OTHER ENGINEERS	2,605	2,498	-4.1	1,750	1,705	-2.6	855	793	-7.3
PHYSICAL SCIENTISTS	6,797	7,074	4.1	3,893	4,181	7.4	2,904	2,893	-.4
ASTRONOMERS	403	440	9.2	258	297	15.1	145	143	-.4
CHEMISTS	2,916	3,069	5.2	1,676	1,789	6.7	1,240	1,280	3.2
PHYSICISTS	2,969	3,003	1.1	1,591	1,656	4.1	1,378	1,347	-2.2
OTHER PHYSICAL SCIENTISTS	509	562	10.4	367	439	19.6	142	123	-13.4
ENVIRONMENTAL SCIENTISTS	2,933	2,931	-.1	2,269	2,245	-1.1	664	686	3.3
ATMOSPHERIC SCIENTISTS	538	482	-10.4	483	439	-9.1	55	43	-21.8
EARTH SCIENTISTS	1,238	1,201	-3.0	953	905	-5.0	285	296	3.9
OCEANOGRAPHERS	939	960	2.2	646	662	2.5	293	298	1.7
OTHER ENVIRONMENTAL SCIENTISTS	219	287	31.1	187	238	27.3	32	49	53.1
MATHEMATICAL AND COMPUTER SCIENTISTS	2,021	2,127	5.2	1,034	1,144	10.6	987	983	-.4
MATHEMATICIANS	1,200	1,167	-2.8	566	575	1.6	634	592	-6.6
COMPUTER SCIENTISTS	821	961	17.1	468	569	21.6	353	392	11.0
LIFE SCIENTISTS	35,536	36,394	2.4	23,435	23,903	2.0	12,101	12,491	3.2
AGRICULTURAL SCIENTISTS	6,453	6,569	1.8	6,249	6,370	1.9	204	199	-2.5
BIOLOGICAL SCIENTISTS	12,889	13,460	4.0	7,556	7,996	5.8	5,333	5,664	6.2
MEDICAL SCIENTISTS	15,518	15,440	-.5	9,181	9,056	-1.4	6,337	6,384	.7
OTHER LIFE SCIENTISTS	676	724	7.1	449	481	7.1	227	243	7.0
PSYCHOLOGISTS	1,385	1,301	-6.1	794	794	.0	591	507	-14.2
SOCIAL SCIENTISTS	3,429	3,352	-2.2	2,360	2,474	4.8	1,069	878	-17.9
ECONOMISTS	1,155	1,173	1.6	868	922	6.2	287	251	-12.5
POLITICAL SCIENTISTS	616	482	-21.8	376	304	-19.1	240	178	-25.8
SOCIOLOGISTS	573	525	-8.4	386	365	-5.4	187	160	-14.4
OTHER SOCIAL SCIENTISTS	1,084	1,170	7.9	729	882	21.0	355	288	-18.9

NOTE: DETAIL MAY NOT ADD TO TOTAL BECAUSE OF ROUNDING.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-36. — SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES, BY TYPE OF INSTITUTION, STATUS, AND FIELD: JANUARY 1984

TYPE OF INSTITUTION AND STATUS	TOTAL	ENGINEERS	PHYSICAL SCIENTISTS	ENVIRONMENTAL SCIENTISTS	MATH. AND COMPUTER SCIENTISTS	LIFE SCIENTISTS	PSYCHOLOGISTS	SOCIAL SCIENTISTS
ALL INSTITUTIONS	370,450	39,015	35,521	10,624	49,282	156,279	23,967	55,762
FULL TIME	281,561	29,435	29,030	8,933	31,940	122,689	17,087	42,447
PART TIME	88,889	9,580	6,491	1,691	17,342	33,590	6,880	13,315
INSTITUTIONS GRANTING:								
DOCTORATE IN S&E	244,286	27,189	20,127	7,447	19,294	130,839	10,866	28,524
FULL TIME	197,508	22,513	17,521	6,472	15,110	103,844	8,566	23,482
PART TIME	46,778	4,676	2,606	975	4,184	26,995	2,300	5,042
MASTER'S IN S&E	44,743	3,175	5,516	1,669	9,269	8,216	5,346	11,552
FULL TIME	32,822	2,015	4,345	1,388	6,092	6,461	3,774	8,747
PART TIME	11,921	1,160	1,171	281	3,177	1,755	1,572	2,805
BACHELOR'S IN S&E	29,812	2,174	4,304	646	6,259	6,091	3,105	7,233
FULL TIME	21,813	1,237	3,591	503	4,073	4,796	2,228	5,385
PART TIME	7,999	937	713	143	2,186	1,295	877	1,848
OTHER DEGREES	545	26	49	50	33	257	28	102
FULL TIME	476	13	38	39	28	241	27	91
PART TIME	69	13	11	12	5	16	1	11
2-YEAR INSTITUTIONS	51,064	6,451	5,525	812	14,427	10,876	4,622	8,351
FULL TIME	28,942	3,657	3,535	532	6,637	7,347	2,492	4,742
PART TIME	22,122	2,794	1,990	280	7,790	3,529	2,130	3,609

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-37. — FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES,
BY TYPE OF INSTITUTION, CONTROL, AND SEX: JANUARY 1984

TYPE OF INSTITUTION AND CONTROL	TOTAL	MEN		WOMEN	
		NUMBER	PERCENT OF TOTAL	NUMBER	PERCENT OF TOTAL
ALL INSTITUTIONS	281,561	224,255	79.6%	57,306	20.4%
PUBLIC	196,754	156,731	79.7	40,023	20.3
PRIVATE	84,807	67,524	79.6	17,283	20.4
INSTITUTIONS GRANTING:					
DOCTORATE IN S&E	197,508	159,467	80.7	38,041	19.3
PUBLIC	136,067	109,693	80.6	26,374	19.4
PRIVATE	61,441	49,774	81.0	11,667	19.0
MASTER'S IN S&E	32,822	26,240	79.9	6,582	20.1
PUBLIC	25,743	20,659	80.3	5,084	19.7
PRIVATE	7,079	5,581	78.8	1,498	21.2
BACHELOR'S IN S&E	21,813	16,806	77.0	5,007	23.0
PUBLIC	7,080	5,882	83.1	1,198	16.9
PRIVATE	14,733	10,924	74.1	3,809	25.9
OTHER DEGREES	476	463	97.3	13	2.7
PUBLIC	283	277	97.9	6	2.1
PRIVATE	193	186	96.4	7	3.6
2-YEAR INSTITUTIONS	28,942	21,279	73.5	7,663	26.5
PUBLIC	27,581	20,220	73.3	7,361	26.7
PRIVATE	1,361	1,059	77.8	302	22.2

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-38. — PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES,
BY TYPE OF INSTITUTION, CONTROL, AND SEX: JANUARY 1984

TYPE OF INSTITUTION AND CONTROL	TOTAL	MEN		WOMEN	
		NUMBER	PERCENT OF TOTAL	NUMBER	PERCENT OF TOTAL
ALL INSTITUTIONS	88,889	64,182	72.2%	24,707	27.8%
PUBLIC	58,070	40,923	70.5	17,147	29.5
PRIVATE	30,819	23,259	75.5	7,560	24.5
INSTITUTIONS GRANTING:					
DOCTORATE IN S&E	46,778	34,823	74.4	11,955	25.6
PUBLIC	28,239	20,022	70.9	8,217	29.1
PRIVATE	18,539	14,801	79.8	3,738	20.2
MASTER'S IN S&E	11,921	8,195	68.7	3,726	31.3
PUBLIC	7,486	5,134	68.6	2,352	31.4
PRIVATE	4,435	3,061	69.0	1,374	31.0
BACHELOR'S IN S&E	7,999	5,460	68.3	2,539	31.7
PUBLIC	999	649	65.0	350	35.0
PRIVATE	7,000	4,811	68.7	2,189	31.3
OTHER DEGREES	69	51	73.9	18	26.1
PUBLIC	43	41	95.3	2	4.7
PRIVATE	26	10	38.5	16	61.5
2-YEAR INSTITUTIONS	22,122	15,653	70.8	6,469	29.2
PUBLIC	21,303	15,077	70.8	6,226	29.2
PRIVATE	819	576	70.3	243	29.7

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-39. -- SCIENTISTS AND ENGINEERS EMPLOYED AT HISTORICALLY BLACK COLLEGES
BY FIELD: JANUARY 1977-78 AND JANUARY 1980-84 1/

FIELD	1977	1978	1980	1981	1982	1983	1984
TOTAL	5,743	5,960	6,277	6,475	6,792	7,298	7,515
ENGINEERS	342	338	352	354	343	367	440
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	10	0	1	0	0	0	2
CHEMICAL ENGINEERS	10	7	10	9	9	11	12
CIVIL ENGINEERS	74	90	85	87	83	94	103
ELECTRICAL ENGINEERS	109	102	132	118	119	113	114
MECHANICAL ENGINEERS	85	82	83	87	91	89	91
OTHER ENGINEERS	54	57	41	53	41	60	138
PHYSICAL SCIENTISTS	699	744	902	956	971	756	725
ASTRONOMERS 2/	-	-	0	0	0	0	2
CHEMISTS	387	415	415	432	447	431	421
PHYSICISTS	239	261	255	274	263	251	249
OTHER PHYSICAL SCIENTISTS	73	68	232	250	261	74	53
ENVIRONMENTAL SCIENTISTS	58	38	163	163	175	83	94
ATMOSPHERIC SCIENTISTS	1	1	1	2	1	2	3
EARTH SCIENTISTS	54	36	57	38	45	34	38
OCEANOGRAPHERS	3	1	1	1	8	12	11
OTHER ENVIRONMENTAL SCIENTISTS 2/	-	-	104	122	121	35	42
MATHEMATICAL AND COMPUTER SCIENTISTS	862	940	911	961	1,061	1,107	1,167
MATHEMATICIANS	729	807	770	818	823	838	851
COMPUTER SCIENTISTS	133	133	141	143	238	269	316
LIFE SCIENTISTS	2,013	2,204	2,290	2,405	2,473	3,211	3,257
AGRICULTURAL SCIENTISTS	230	256	253	217	204	271	255
BIOLOGICAL SCIENTISTS	898	910	772	804	865	934	997
MEDICAL SCIENTISTS	885	1,038	1,115	1,265	1,208	1,630	1,714
OTHER LIFE SCIENTISTS 2/	-	-	150	173	194	376	291
PSYCHOLOGISTS	382	367	339	342	386	404	395
SOCIAL SCIENTISTS	1,387	1,329	1,320	1,294	1,383	1,370	1,417
ECONOMISTS	296	258	261	270	280	290	277
POLITICAL SCIENTISTS	315	305	314	295	357	356	329
SOCIOLOGISTS	473	472	455	435	477	443	438
OTHER SOCIAL SCIENTISTS	303	294	290	294	269	281	363

1/ DATA WERE NOT COLLECTED IN 1979.
2/ DATA NOT AVAILABLE PRIOR TO 1980.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-40. -- FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT HISTORICALLY BLACK COLLEGES
BY FIELD: JANUARY 1977-78 AND JANUARY 1980-84 1/

FIELD	1977	1978	1980	1981	1982	1983	1984
TOTAL	4,704	4,826	5,090	5,133	5,406	5,574	5,820
ENGINEERS	281	279	270	262	255	312	390
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	9	0	0	0	0	0	2
CHEMICAL ENGINEERS	10	7	6	5	5	7	9
CIVIL ENGINEERS	49	68	59	61	59	78	84
ELECTRICAL ENGINEERS	87	79	95	78	85	96	99
MECHANICAL ENGINEERS	75	72	73	74	74	75	77
OTHER ENGINEERS	51	53	37	44	32	56	119
PHYSICAL SCIENTISTS	623	660	732	758	773	660	629
ASTRONOMERS 2/	-	-	0	0	0	0	1
CHEMISTS	353	372	367	379	390	378	370
PHYSICISTS	212	230	218	227	225	216	211
OTHER PHYSICAL SCIENTISTS	58	58	147	152	158	66	47
ENVIRONMENTAL SCIENTISTS	46	32	105	102	120	78	89
ATMOSPHERIC SCIENTISTS	1	1	1	2	1	2	3
EARTH SCIENTISTS	43	30	47	31	42	31	37
OCEANOGRAPHERS	2	1	1	1	8	12	11
OTHER ENVIRONMENTAL SCIENTISTS 2/	-	-	56	68	69	33	38
MATHEMATICAL AND COMPUTER SCIENTISTS	757	802	764	779	867	884	919
MATHEMATICIANS	650	691	645	682	693	693	697
COMPUTER SCIENTISTS	107	111	99	97	174	191	222
LIFE SCIENTISTS	1,487	1,609	1,838	1,893	1,927	2,148	2,227
AGRICULTURAL SCIENTISTS	221	234	230	201	181	233	218
BIOLOGICAL SCIENTISTS	763	752	702	721	775	833	899
MEDICAL SCIENTISTS	503	623	767	806	798	757	874
OTHER LIFE SCIENTISTS 2/	-	-	139	165	173	325	236
PSYCHOLOGISTS	324	311	287	280	319	330	334
SOCIAL SCIENTISTS	1,186	1,133	1,094	1,059	1,145	1,162	1,232
ECONOMISTS	248	218	215	219	214	235	237
POLITICAL SCIENTISTS	282	285	268	248	304	307	307
SOCIOLOGISTS	430	416	391	373	421	399	389
OTHER SOCIAL SCIENTISTS	226	214	220	219	206	221	299

1/ DATA WERE NOT COLLECTED IN 1979.
2/ DATA NOT AVAILABLE PRIOR TO 1980.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-41. -- PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT HISTORICALLY BLACK COLLEGES
BY FIELD: JANUARY 1977-78 AND JANUARY 1980-84 1/

FIELD	1977	1978	1980	1981	1982	1983	1984
TOTAL	1,039	1,134	1,187	1,342	1,386	1,724	1,695
ENGINEERS	61	59	82	92	88	55	70
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	1	0	1	0	0	0	0
CHEMICAL ENGINEERS	0	0	4	4	4	4	3
CIVIL ENGINEERS	25	22	26	26	24	16	19
ELECTRICAL ENGINEERS	22	23	37	40	34	17	15
MECHANICAL ENGINEERS	10	10	10	13	17	14	14
OTHER ENGINEERS	3	4	4	9	9	4	19
PHYSICAL SCIENTISTS	76	84	170	198	198	96	96
ASTRONOMERS 2/	-	-	0	0	0	0	1
CHEMISTS	34	43	48	53	57	53	51
PHYSICISTS	27	31	37	47	38	35	38
OTHER PHYSICAL SCIENTISTS	15	10	85	98	103	8	6
ENVIRONMENTAL SCIENTISTS	12	6	58	61	55	5	5
ATMOSPHERIC SCIENTISTS	0	0	0	0	0	0	0
EARTH SCIENTISTS	11	6	10	7	3	3	1
OCEANOGRAPHERS	1	0	0	0	0	0	0
OTHER ENVIRONMENTAL SCIENTISTS 2/	-	-	48	54	52	2	4
MATHEMATICAL AND COMPUTER SCIENTISTS	105	138	147	182	194	223	248
MATHEMATICIANS	79	116	105	136	130	145	154
COMPUTER SCIENTISTS	26	22	42	46	64	78	94
LIFE SCIENTISTS	526	595	452	512	546	1,063	1,030
AGRICULTURAL SCIENTISTS	9	22	23	16	25	38	37
BIOLOGICAL SCIENTISTS	135	158	70	83	90	101	98
MEDICAL SCIENTISTS	382	415	348	399	410	873	840
OTHER LIFE SCIENTISTS 2/	-	-	11	14	21	51	55
PSYCHOLOGISTS	58	56	52	62	67	74	61
SOCIAL SCIENTISTS	201	196	226	235	238	208	185
ECONOMISTS	48	40	46	51	66	55	40
POLITICAL SCIENTISTS	33	20	46	47	53	49	32
SOCIOLOGISTS	43	56	64	62	56	44	49
OTHER SOCIAL SCIENTISTS	77	80	70	75	63	60	64

1/ DATA WERE NOT COLLECTED IN 1979.
2/ DATA NOT AVAILABLE PRIOR TO 1980.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-42. -- FEMALE SCIENTISTS AND ENGINEERS EMPLOYED AT HISTORICALLY BLACK COLLEGES
BY STATUS: JANUARY 1980 AND JANUARY 1983-84

FIELD	TOTAL			FULL TIME			PART TIME		
	1980	1983	1984	1980	1983	1984	1980	1983	1984
TOTAL	1,634	1,867	1,929	1,319	1,576	1,658	315	291	271
ENGINEERS	3	10	33	2	8	27	1	2	6
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	0	0	0	0	0	0	0	0	0
CHEMICAL ENGINEERS	0	2	1	0	0	0	0	2	1
CIVIL ENGINEERS	2	5	7	1	5	6	1	0	1
ELECTRICAL ENGINEERS	0	0	2	0	0	2	0	0	0
MECHANICAL ENGINEERS	1	1	1	1	1	18	0	0	0
OTHER ENGINEERS	0	2	22	0	2	18	0	0	4
PHYSICAL SCIENTISTS	157	119	110	111	101	91	46	18	19
ASTRONOMERS	0	0	0	0	0	0	0	0	0
CHEMISTS	66	72	71	52	60	58	14	12	13
PHYSICISTS	29	27	24	24	23	20	5	4	4
OTHER PHYSICAL SCIENTISTS	62	20	15	35	18	13	27	2	2
ENVIRONMENTAL SCIENTISTS	48	16	23	25	15	22	33	1	1
ATMOSPHERIC SCIENTISTS	0	0	0	0	0	0	0	0	0
EARTH SCIENTISTS	5	3	7	4	2	7	1	1	0
OCEANOGRAPHERS	1	7	7	1	7	7	0	0	0
OTHER ENVIRONMENTAL SCIENTISTS	42	6	9	20	6	8	22	0	1
MATHEMATICAL AND COMPUTER SCIENTISTS	256	336	360	223	282	290	33	54	70
MATHEMATICIANS	233	276	286	204	229	228	29	47	58
COMPUTER SCIENTISTS	23	60	74	19	53	62	4	7	12
LIFE SCIENTISTS	682	848	838	546	710	733	136	138	105
AGRICULTURAL SCIENTISTS	42	42	46	37	38	40	5	4	6
BIOLOGICAL SCIENTISTS	227	321	352	206	288	314	21	33	38
MEDICAL SCIENTISTS	317	157	218	213	96	182	104	61	36
OTHER LIFE SCIENTISTS	96	328	222	90	288	197	6	40	25
PSYCHOLOGISTS	108	164	172	96	133	145	12	31	27
SOCIAL SCIENTISTS	380	374	393	316	327	350	64	47	43
ECONOMISTS	33	32	30	25	23	24	8	9	6
POLITICAL SCIENTISTS	59	68	69	51	62	65	8	6	4
SOCIOLOGISTS	184	183	184	154	163	164	30	20	20
OTHER SOCIAL SCIENTISTS	104	91	110	86	79	97	18	12	13

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-43. — SCIENTISTS AND ENGINEERS EMPLOYED AT HISTORICALLY BLACK COLLEGES
BY FIELD AND CONTROL: JANUARY 1980 AND JANUARY 1983-84

FIELD	TOTAL			PUBLIC			PRIVATE		
	1980	1983	1984	1980	1983	1984	1980	1983	1984
TOTAL	6,277	7,298	7,515	3,143	3,655	3,694	3,134	3,643	3,821
ENGINEERS	352	367	460	240	245	285	112	122	175
AERONAUTICAL AND ASTRONAUTICAL									
ENGINEERS	1	0	2	1	0	1	0	0	1
CHEMICAL ENGINEERS	10	11	12	1	2	1	9	9	11
CIVIL ENGINEERS	85	94	103	59	76	85	26	18	18
ELECTRICAL ENGINEERS	132	113	114	93	74	78	39	39	36
MECHANICAL ENGINEERS	83	89	91	53	52	60	30	37	31
OTHER ENGINEERS	41	60	138	33	41	60	8	19	78
PHYSICAL SCIENTISTS	902	756	725	425	463	430	477	293	295
ASTRONOMERS	0	0	2	0	0	1	0	0	1
CHEMISTS	415	431	421	230	243	244	185	188	177
PHYSICISTS	295	251	249	154	160	150	101	91	99
OTHER PHYSICAL SCIENTISTS	232	74	53	41	60	35	191	14	18
ENVIRONMENTAL SCIENTISTS	163	83	94	64	72	82	99	11	12
ATMOSPHERIC SCIENTISTS	1	2	3	0	2	3	1	0	0
EARTH SCIENTISTS	57	34	38	43	23	26	14	11	12
OCEANOGRAPHERS	1	12	11	1	12	11	0	0	0
OTHER ENVIRONMENTAL SCIENTISTS	104	35	42	20	35	42	84	0	0
MATHEMATICAL AND COMPUTER SCIENTISTS	911	1,107	1,167	610	784	826	301	323	341
MATHEMATICIANS	770	838	851	506	565	567	264	273	284
COMPUTER SCIENTISTS	141	269	316	104	219	259	37	50	57
LIFE SCIENTISTS	2,290	3,211	3,737	831	932	921	1,459	2,279	2,336
AGRICULTURAL SCIENTISTS	253	271	255	236	233	215	17	38	40
BIOLOGICAL SCIENTISTS	772	934	997	443	527	524	329	407	473
MEDICAL SCIENTISTS	1,115	1,630	1,714	61	37	36	1,054	1,393	1,678
OTHER LIFE SCIENTISTS	150	376	291	91	135	146	59	241	145
PSYCHOLOGISTS	339	404	395	207	273	279	132	131	116
SOCIAL SCIENTISTS	1,320	1,370	1,417	766	886	871	554	484	546
ECONOMISTS	261	290	277	158	178	165	103	112	112
POLITICAL SCIENTISTS	314	356	339	172	239	224	142	117	115
SOCIOLOGISTS	455	443	438	265	288	284	190	155	154
OTHER SOCIAL SCIENTISTS	290	281	363	171	181	198	119	100	165

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-44. — SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES
BY GEOGRAPHIC DISTRIBUTION: JANUARY 1984

DIVISION	TOTAL	FULL TIME	PART TIME
TOTAL, ALL INSTITUTIONS	370,450	281,561	88,889
NEW ENGLAND	30,161	22,168	7,993
MIDDLE ATLANTIC	63,451	45,928	17,523
EAST NORTH CENTRAL	64,044	47,785	16,259
WEST NORTH CENTRAL	27,890	23,674	4,216
SOUTH ATLANTIC	62,209	48,736	13,473
EAST SOUTH CENTRAL	18,638	15,694	2,944
WEST SOUTH CENTRAL	32,661	27,094	5,567
MOUNTAIN	17,781	14,294	3,487
PACIFIC	49,822	33,674	16,148
OUTLYING AREAS	3,793	2,514	1,279

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-45. — SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS
BY GEOGRAPHIC DISTRIBUTION: JANUARY 1977 - JANUARY 1984

DIVISION AND STATE	1977	1978	1979	1980	1981	1982	1983	1984
TOTAL, ALL INSTITUTIONS ...	193,204	200,366	210,579	218,021	223,925	231,711	236,545	244,286
NEW ENGLAND	17,993	18,002	19,135	19,728	19,914	21,521	22,166	23,519
CONNECTICUT	3,208	3,305	3,561	3,804	3,793	4,025	3,608	3,649
MAINE	428	498	443	452	432	436	439	439
MASSACHUSETTS	11,763	11,959	12,878	13,060	13,163	14,521	15,602	16,898
NEW HAMPSHIRE	781	864	886	984	1,003	1,011	1,000	1,020
RHODE ISLAND	849	871	849	882	892	900	904	916
VERMONT	564	505	498	546	631	628	613	597
MIDDLE ATLANTIC	32,301	34,039	33,378	34,175	36,097	37,507	39,090	39,211
NEW JERSEY	4,103	4,261	4,411	4,504	4,625	4,639	4,561	4,573
NEW YORK	17,209	18,622	19,274	19,915	20,890	22,085	22,913	23,101
PENNSYLVANIA	10,989	11,156	9,693	9,756	10,582	10,783	11,616	11,537
EAST NORTH CENTRAL	36,095	36,136	37,579	39,592	39,298	39,726	39,708	41,677
ILLINOIS	9,885	9,523	10,144	10,518	10,624	10,653	10,488	10,517
INDIANA	4,208	4,515	4,275	4,761	4,794	5,525	5,667	5,719
MICHIGAN	8,072	7,932	8,034	8,039	8,352	8,042	7,281	7,830
OHIO	8,466	8,174	9,601	10,669	10,414	10,438	11,188	11,887
WISCONSIN	5,464	5,392	5,525	5,605	5,114	5,068	5,084	5,724
WEST NORTH CENTRAL	15,507	15,779	17,274	16,170	18,757	18,770	18,457	19,302
IOWA	2,741	2,744	3,450	3,662	3,762	3,591	3,727	3,823
KANSAS	2,505	2,582	2,758	2,977	2,047	3,175	2,952	3,213
MINNESOTA	3,455	3,471	3,581	3,620	3,655	3,534	3,329	3,440
MISSOURI	4,023	3,835	4,105	4,538	4,933	4,963	5,051	5,336
NEBRASKA	1,466	1,651	1,879	1,839	1,828	1,855	1,701	1,713
NORTH DAKOTA	570	671	695	742	774	873	880	956
SOUTH DAKOTA	747	825	806	792	758	779	818	821
SOUTH ATLANTIC	28,373	29,854	33,261	33,797	35,541	36,175	37,320	38,966
DELAWARE	492	505	559	572	578	585	583	559
DISTRICT OF COLUMBIA	3,407	3,474	3,913	4,107	4,308	4,273	4,750	4,920
FLORIDA	4,364	4,541	4,783	5,159	5,738	5,956	6,194	6,447
GEORGIA	3,821	4,147	4,098	4,363	4,385	4,438	4,411	4,798
MARYLAND	4,967	5,037	6,217	6,104	6,300	6,556	6,901	7,269
NORTH CAROLINA	4,715	5,174	5,965	5,508	5,609	5,757	5,809	6,142
SOUTH CAROLINA	1,848	2,093	2,582	2,786	2,966	3,003	2,904	2,987
VIRGINIA	3,651	3,784	3,790	3,772	4,311	4,232	4,367	4,442
WEST VIRGINIA	1,108	1,099	1,354	1,426	1,346	1,375	1,401	1,402
EAST SOUTH CENTRAL	9,233	9,763	10,516	11,498	11,945	11,997	12,330	12,708
ALABAMA	2,453	2,480	2,921	3,009	3,181	3,263	3,446	3,509
KENTUCKY	1,853	2,104	2,547	3,019	3,010	2,971	3,151	3,253
MISSISSIPPI	1,198	1,280	1,249	1,538	1,560	1,653	1,630	1,768
TENNESSEE	3,729	3,899	3,799	3,932	4,194	4,110	4,103	4,178
WEST SOUTH CENTRAL	18,559	19,237	21,239	22,187	22,055	22,465	23,360	24,021
ARKANSAS	1,452	1,544	1,561	1,578	1,406	1,482	1,510	1,506
LOUISIANA	3,477	3,978	4,451	4,520	4,575	4,567	4,774	4,959
OKLAHOMA	1,614	1,138	1,924	2,109	2,308	2,317	2,390	2,518
TEXAS	12,016	12,577	13,303	13,980	13,766	14,099	14,686	15,038
MOUNTAIN	9,796	11,311	12,068	13,051	13,936	14,149	13,979	13,887
ARIZONA	2,236	2,448	2,459	2,459	2,639	2,512	2,574	3,114
COLORADO	2,605	2,679	2,735	3,309	3,184	3,339	3,253	2,759
IDaho	588	722	762	770	825	807	828	781
MONTANA	686	698	687	717	775	783	835	864
NEVADA	398	329	341	301	400	401	427	426
NEW MEXICO	1,200	1,356	1,952	2,173	2,481	2,569	2,420	2,666
UTAH	1,666	2,589	2,683	2,770	3,072	3,129	3,103	2,770
WYOMING	417	490	449	552	560	609	539	507
PACIFIC	24,049	24,565	24,691	24,379	24,608	27,948	28,109	29,154
ALASKA	327	293	241	275	268	270	260	267
CALIFORNIA	16,349	16,527	16,659	16,294	16,385	19,503	20,440	21,536
HAWAII	1,197	1,262	1,262	1,245	1,287	1,323	1,316	1,355
OREGON	2,597	2,645	2,676	2,703	2,749	2,831	2,780	2,824
WASHINGTON	3,579	3,838	3,853	3,900	3,919	3,421	3,313	3,172
OUTLYING AREAS	1,698	1,680	1,438	1,444	1,774	2,053	2,026	1,841

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-44. -- FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS
BY GEOGRAPHIC DISTRIBUTION: JANUARY 1977 - JANUARY 1984

DIVISION AND STATE	1977	1978	1979	1980	1981	1982	1983	1984
TOTAL, ALL INSTITUTIONS ...	159,848	164,732	173,190	179,775	183,179	189,420	192,756	197,508
NEN ENGLAND	13,708	14,284	14,883	15,487	15,662	16,241	16,829	17,786
CONNECTICUT	2,744	2,818	3,047	3,200	3,205	3,352	3,160	3,166
MAINE	402	454	422	419	407	406	404	404
MASSACHUSETTS	8,711	9,084	9,505	9,783	9,945	10,352	11,089	12,052
NEW HAMPSHIRE	670	694	664	772	656	687	733	734
RHODE ISLAND	793	824	822	857	867	869	872	881
VERMONT	384	410	423	456	582	575	571	549
MIDDLE ATLANTIC	24,872	26,137	26,772	27,715	28,746	29,841	30,459	30,693
NEW JERSEY	3,149	3,270	3,376	3,558	3,607	3,639	3,583	3,588
NEW YORK	13,944	14,968	15,385	15,972	16,503	17,377	17,924	17,918
PENNSYLVANIA	7,779	7,899	8,011	8,185	8,636	8,825	8,950	9,187
EAST NORTH CENTRAL	29,406	29,120	30,368	31,802	30,666	31,873	31,453	32,634
ILLINOIS	8,242	7,727	8,108	8,341	8,581	8,779	8,665	8,793
INDIANA	3,583	3,799	3,695	3,930	3,937	4,462	4,557	4,508
MICHIGAN	6,515	6,371	6,574	6,555	6,558	6,467	6,087	6,461
OHIO	6,745	6,912	7,603	8,543	7,536	8,118	8,216	8,560
WISCONSIN	4,321	4,311	4,388	4,433	4,054	4,047	3,928	4,312
WEST NORTH CENTRAL	13,788	13,998	14,968	15,555	16,056	15,957	15,993	16,703
IOWA	2,470	2,487	2,967	3,218	3,246	3,083	3,211	3,296
KANSAS	2,199	2,260	2,341	2,444	2,538	2,621	2,641	2,814
MINNESOTA	2,890	2,901	3,014	3,030	3,081	3,003	2,862	2,965
MISSOURI	3,717	3,519	3,685	3,898	4,255	4,206	4,240	4,492
NEBRASKA	1,271	1,432	1,533	1,511	1,523	1,524	1,503	1,520
NORTH DAKOTA	546	653	672	697	727	812	815	872
SOUTH DAKOTA	695	746	756	757	686	708	721	744
SOUTH ATLANTIC	24,300	25,449	28,228	29,466	30,538	31,235	32,025	33,217
DELAWARE	459	466	512	532	556	567	566	537
DISTRICT OF COLUMBIA	2,119	2,182	2,425	2,680	2,763	2,777	2,907	3,116
FLORIDA	3,923	4,161	4,230	4,492	4,835	5,090	5,358	5,495
GEORGIA	3,345	3,679	3,578	3,899	3,901	3,908	3,904	4,221
MARYLAND	4,130	4,194	5,379	5,374	5,461	5,681	5,929	6,170
NORTH CAROLINA	4,432	4,567	5,189	5,128	5,292	5,407	5,466	5,685
SOUTH CAROLINA	1,608	1,813	2,297	2,526	2,653	2,684	2,654	2,723
VIRGINIA	3,288	3,378	3,384	3,566	3,878	3,901	3,976	4,004
WEST VIRGINIA	992	1,009	1,234	1,267	1,199	1,220	1,265	1,266
EAST SOUTH CENTRAL	8,194	8,484	9,173	10,006	10,269	10,298	10,574	10,876
ALABAMA	2,151	2,172	2,533	2,665	2,750	2,810	3,000	3,039
KENTUCKY	1,689	1,781	2,162	2,499	2,517	2,487	2,592	2,669
MISSISSIPPI	1,094	1,162	1,188	1,386	1,373	1,469	1,444	1,567
TENNESSEE	3,260	3,369	3,290	3,456	3,629	3,532	3,538	3,601
WEST SOUTH CENTRAL	16,583	16,867	18,122	19,069	19,012	19,373	20,127	20,929
ARKANSAS	1,326	1,314	1,414	1,471	1,299	1,340	1,374	1,394
LOUISIANA	3,125	3,300	3,738	3,866	3,862	3,892	4,048	4,211
OKLAHOMA	1,470	1,061	1,696	1,846	2,012	1,976	2,058	2,234
TEXAS	10,662	11,192	11,274	11,886	11,879	12,165	12,647	13,090
MOUNTAIN	9,038	10,216	10,729	11,438	12,458	12,604	12,495	11,482
ARIZONA	1,980	2,229	2,211	2,210	2,415	2,310	2,371	2,646
COLORADO	2,468	2,575	2,554	3,020	2,982	3,054	3,004	2,176
IDaho	556	690	713	714	757	724	748	709
MONTANA	635	643	626	651	691	696	716	738
NEVADA	360	299	296	272	324	324	340	326
NEW MEXICO	1,044	1,218	1,704	1,791	2,058	2,146	2,031	2,218
UTAH	1,582	2,100	2,207	2,275	2,740	2,780	2,774	2,185
WYOMING	413	462	418	505	491	570	511	484
PACIFIC	18,447	18,717	18,701	17,989	18,168	20,226	21,064	21,643
ALASKA	327	260	238	255	255	257	254	261
CALIFORNIA	12,154	12,230	12,277	11,579	11,725	14,350	15,332	15,922
HAWAII	954	1,028	1,029	993	1,013	1,043	1,023	1,045
OREGON	2,167	2,163	2,145	2,143	2,164	2,167	2,158	2,166
WASHINGTON	2,845	3,036	3,012	3,019	3,011	2,409	2,297	2,249
OUTLYING AREAS	1,512	1,458	1,246	1,248	1,604	1,772	1,737	1,545

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 8-47. — PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS
BY GEOGRAPHIC DISTRIBUTION: JANUARY 1977 - JANUARY 1984

DIVISION AND STATE	1977	1978	1979	1980	1981	1982	1983	1984
TOTAL, ALL INSTITUTIONS ...	33,356	35,634	37,389	38,246	40,746	42,291	43,789	46,778
NEW ENGLAND	3,885	3,716	4,252	4,241	4,252	5,280	5,337	5,733
CONNECTICUT	462	487	514	604	588	673	448	483
MAINE	26	44	41	33	25	30	35	35
MASSACHUSETTS	3,052	2,873	3,373	3,277	3,218	4,169	4,513	4,846
NEW HAMPSHIRE	111	170	222	212	347	324	267	286
RHODE ISLAND	54	47	27	25	25	31	32	35
VERMONT	178	95	75	90	49	53	42	48
MIDDLE ATLANTIC	7,429	7,902	6,606	6,460	7,351	7,646	8,631	8,518
NEW JERSEY	954	991	1,035	946	1,018	1,000	978	985
NEW YORK	3,265	3,654	3,889	3,943	4,387	4,708	4,987	5,183
PENNSYLVANIA	3,210	3,257	1,682	1,571	1,946	1,958	2,666	2,350
EAST NORTH CENTRAL	6,689	7,016	7,211	7,790	8,632	7,853	8,255	9,043
ILLINOIS	1,643	1,796	2,036	2,177	2,043	1,874	1,823	1,734
INDIANA	625	716	580	831	857	1,063	1,110	1,211
MICHIGAN	1,557	1,561	1,460	1,484	1,794	1,575	1,194	1,369
OHIO	1,721	1,862	1,998	2,126	2,878	2,320	2,972	3,327
WISCONSIN	1,143	1,081	1,137	1,172	1,060	1,021	1,156	1,412
WEST NORTH CENTRAL	1,719	1,781	2,306	2,615	2,701	2,813	2,464	2,599
IOWA	271	257	483	444	516	508	516	527
KANSAS	306	322	417	533	509	554	311	399
MINNESOTA	565	570	567	590	574	531	467	475
MISSOURI	306	316	420	640	678	757	811	844
NEBRASKA	195	219	346	328	305	331	197	193
NORTH DAKOTA	24	18	23	45	47	61	65	84
SOUTH DAKOTA	52	79	50	35	72	71	97	77
SOUTH ATLANTIC	4,073	4,405	5,033	4,331	5,003	4,940	5,295	5,749
DELAWARE	33	39	47	40	22	18	17	22
DISTRICT OF COLUMBIA	1,288	1,292	1,488	1,427	1,545	1,496	1,843	1,804
FLORIDA	441	380	553	667	903	866	836	952
GEORGIA	472	468	520	464	484	530	607	577
MARYLAND	837	843	838	730	839	875	972	1,099
NORTH CAROLINA	283	607	776	380	317	350	343	457
SOUTH CAROLINA	240	280	285	260	313	319	250	264
VIRGINIA	363	406	406	206	433	331	391	438
WEST VIRGINIA	116	90	120	157	147	155	136	136
EAST SOUTH CENTRAL	1,039	1,279	1,343	1,492	1,676	1,699	1,756	1,832
ALABAMA	302	308	388	344	431	453	446	470
KENTUCKY	164	323	385	520	493	484	559	584
MISSISSIPPI	104	118	61	152	187	184	186	201
TENNESSEE	469	530	509	476	565	578	565	577
WEST SOUTH CENTRAL	1,976	2,370	3,117	3,118	3,043	3,092	3,233	3,092
ARKANSAS	126	230	147	107	147	142	136	112
LOUISIANA	352	678	713	654	713	675	726	748
OKLAHOMA	144	77	228	263	296	341	332	284
TEXAS	1,354	1,385	2,029	2,094	1,887	1,934	2,039	1,948
MOUNTAIN	758	1,095	1,339	1,613	1,478	1,545	1,484	2,405
ARIZONA	256	219	248	249	224	202	203	468
COLORADO	137	104	181	289	202	285	249	583
IDAHO	32	32	49	56	68	83	80	72
MONTANA	51	55	61	66	84	87	119	126
NEVADA	38	30	45	29	76	77	87	100
NEW MEXICO	156	138	248	382	423	423	389	448
UTAH	84	489	476	495	332	349	329	585
WYOMING	4	28	31	47	69	39	28	23
PACIFIC	5,602	5,848	5,990	6,390	6,440	7,122	7,045	7,511
ALASKA	0	33	3	20	13	13	6	6
CALIFORNIA	4,195	4,297	4,382	4,677	4,660	5,153	5,108	5,614
HAWAII	243	234	233	252	274	280	293	310
OREGON	430	482	531	560	585	664	622	658
WASHINGTON	734	802	841	881	908	1,012	1,016	923
OUTLYING AREAS	186	222	192	196	170	281	289	296

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-48. — SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS
BY GEOGRAPHIC DISTRIBUTION, CONTROL, AND STATUS: JANUARY 1984

DIVISION AND STATE	PUBLIC			PRIVATE		
	TOTAL	FULL TIME	PART TIME	TOTAL	FULL TIME	PART TIME
TOTAL, ALL INSTITUTIONS ...	164,306	136,067	28,239	79,980	61,441	18,539
NEN ENGLAND	5,090	4,535	555	18,429	13,251	5,178
CONNECTICUT	1,561	1,271	290	2,088	1,895	193
MAINE	439	404	35	0	0	0
MASSACHUSETTS	1,675	1,510	165	15,223	10,542	4,681
NEW HAMPSHIRE	398	381	17	622	353	269
RHODE ISLAND	420	420	0	496	441	35
VERMONT	597	549	48	0	0	0
MIDDLE ATLANTIC	15,361	12,640	2,701	23,850	18,033	5,817
NEW JERSEY	3,005	2,562	443	1,568	1,026	542
NEW YORK	6,236	4,954	1,282	16,865	12,964	3,901
PENNSYLVANIA	6,120	5,144	976	5,417	4,043	1,374
EAST NORTH CENTRAL	32,804	25,526	7,278	8,873	7,108	1,765
ILLINOIS	5,694	4,832	862	4,823	3,961	862
INDIANA	5,301	4,132	1,169	418	376	42
MICHIGAN	7,562	6,333	1,229	268	128	140
OHIO	9,855	6,836	3,019	2,032	1,724	308
WISCONSIN	4,392	3,393	999	1,332	919	413
WEST NORTH CENTRAL	16,138	14,095	2,043	3,164	2,608	556
IOWA	3,749	3,254	495	74	42	32
KANSAS	3,213	2,814	399	0	0	0
MINNESOTA	3,440	2,965	475	0	0	0
MISSOURI	2,595	2,224	371	2,741	2,268	473
NEBRASKA	1,364	1,222	142	349	298	51
NORTH DAKOTA	956	872	84	0	0	0
SOUTH DAKOTA	821	744	77	0	0	0
SOUTH ATLANTIC	24,892	22,016	2,876	14,074	11,201	2,873
DELAWARE	559	537	22	0	0	0
DISTRICT OF COLUMBIA	0	0	0	4,920	3,116	1,804
FLORIDA	4,630	4,111	519	1,817	1,384	433
GEORGIA	3,464	3,131	333	1,334	1,090	244
MARYLAND	3,636	2,765	871	3,633	3,405	228
NORTH CAROLINA	4,030	3,690	340	2,112	1,995	117
SOUTH CAROLINA	2,987	2,723	264	0	0	0
VIRGINIA	4,184	3,793	391	258	211	47
WEST VIRGINIA	1,402	1,266	136	0	0	0
EAST SOUTH CENTRAL	11,469	9,800	1,669	1,239	1,076	163
ALABAMA	3,509	3,039	470	0	0	0
KENTUCKY	3,253	2,649	584	0	0	0
MISSISSIPPI	1,768	1,567	201	0	0	0
TENNESSEE	2,939	2,525	414	1,239	1,076	163
WEST SOUTH CENTRAL	20,703	18,179	2,524	3,318	2,750	568
ARKANSAS	1,506	1,394	112	0	0	0
LOUISIANA	4,351	3,675	676	608	536	72
OKLAHOMA	2,092	1,889	203	426	345	81
TEXAS	12,754	11,221	1,533	2,284	1,869	415
MOUNTAIN	12,969	10,668	2,301	918	814	104
ARIZONA	3,114	2,646	468	0	0	0
COLORADO	2,420	1,876	544	339	300	39
IDAHO	781	709	72	0	0	0
MONTANA	864	738	126	0	0	0
NEVADA	426	326	100	0	0	0
NEW MEXICO	2,666	2,218	448	0	0	0
UTAH	2,191	1,671	520	579	514	65
WYOMING	507	484	23	0	0	0
PACIFIC	23,246	17,198	6,048	5,908	4,445	1,463
ALASKA	267	261	6	0	0	0
CALIFORNIA	15,711	11,560	4,151	5,825	4,362	1,463
HAWAII	1,355	1,045	310	0	0	0
OREGON	2,741	2,083	658	83	83	0
WASHINGTON	3,172	2,249	923	0	0	0
OUTLYING AREAS	1,634	1,390	244	207	155	52

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-49. — SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS
BY GEOGRAPHIC DISTRIBUTION AND FIELD: JANUARY 1984

DIVISION AND STATE	TOTAL	ENGINEERS	PHYSICAL SCIENTISTS	ENVIRON- MENTAL SCIENTISTS	MATH. & COMPUTER SCIENTISTS	LIFE SCIENTISTS	PSYCHOL- OGISTS	SOCIAL SCIENTISTS
TOTAL, ALL INSTITUTIONS ...	244,286	27,189	20,127	7,447	19,294	130,839	10,866	28,524
NEN ENGLAND	23,519	2,342	2,273	648	1,525	13,472	875	2,384
CONNECTICUT	3,649	195	235	84	189	2,311	194	441
MAINE	439	80	45	35	37	165	23	54
MASSACHUSETTS	14,898	1,817	1,742	407	1,069	9,835	520	1,508
NEW HAMPSHIRE	1,020	95	93	41	80	531	50	130
RHODE ISLAND	916	123	123	64	113	241	53	199
VERMONT	597	32	35	17	37	389	35	52
MIDDLE ATLANTIC	39,211	4,085	3,347	820	3,520	20,395	2,131	4,913
NEW JERSEY	4,573	621	526	123	517	1,741	306	739
NEW YORK	23,101	1,926	1,942	538	1,884	12,540	1,385	2,886
PENNSYLVANIA	11,537	1,538	879	159	1,119	6,114	440	1,288
EAST NORTH CENTRAL	41,677	4,801	3,663	1,127	3,769	21,169	2,116	5,032
ILLINOIS	10,517	1,068	940	287	988	5,268	638	1,328
INDIANA	5,719	812	699	216	638	2,274	344	736
MICHIGAN	7,830	940	759	146	627	3,785	416	1,157
OHIO	11,887	1,396	868	211	1,162	6,542	454	1,254
WISCONSIN	5,724	585	397	267	354	3,300	264	557
WEST NORTH CENTRAL	19,302	2,052	1,102	430	1,318	11,331	775	2,294
IOWA	3,823	479	225	50	301	2,239	100	429
KANSAS	3,213	374	150	87	191	1,802	221	388
MINNESOTA	3,440	250	155	44	180	2,067	127	617
MISSOURI	5,336	455	313	95	344	3,545	152	432
NEBRASKA	1,713	207	142	64	148	832	100	220
NORTH DAKOTA	956	146	65	67	96	425	38	119
SOUTH DAKOTA	621	141	52	23	58	421	37	89
SOUTH ATLANTIC	38,966	4,761	2,897	1,109	3,136	20,793	1,302	4,968
DELAWARE	559	102	91	76	55	110	23	102
DISTRICT OF COLUMBIA	4,920	368	204	28	320	3,155	139	706
FLORIDA	6,447	651	336	281	554	3,426	272	927
GEORGIA	4,798	901	420	119	455	2,188	185	530
MARYLAND	7,269	1,355	844	197	529	3,576	139	629
NORTH CAROLINA	6,142	454	363	119	402	3,913	195	696
SOUTH CAROLINA	2,987	249	217	63	316	1,709	114	319
VIRGINIA	4,442	556	369	208	409	2,167	200	533
WEST VIRGINIA	1,402	125	53	18	96	549	35	526
EAST SOUTH CENTRAL	12,708	1,406	737	199	1,107	7,320	579	1,360
ALABAMA	3,509	482	219	41	362	1,934	167	304
KENTUCKY	3,253	261	188	67	281	1,913	151	392
MISSISSIPPI	1,768	178	82	23	138	1,060	61	226
TENNESSEE	4,178	485	248	68	326	2,413	200	438
WEST SOUTH CENTRAL	24,021	2,386	1,658	746	1,907	14,029	819	2,476
ARKANSAS	1,506	97	53	10	40	1,184	18	104
LOUISIANA	4,959	405	271	190	478	3,071	135	409
OKLAHOMA	2,518	392	193	78	180	1,322	69	284
TEXAS	15,038	1,492	1,141	468	1,209	8,452	597	1,679
MOUNTAIN	13,887	2,282	1,560	792	1,418	5,145	738	1,952
ARIZONA	3,114	491	364	183	289	1,043	217	527
COLORADO	2,759	491	450	210	281	706	171	450
IDAHO	781	94	47	31	63	453	24	69
MONTANA	864	91	85	41	108	365	31	143
NEVADA	426	46	36	70	23	198	14	39
NEW MEXICO	2,666	540	219	102	342	988	137	338
UTAH	2,770	558	313	115	241	1,193	122	328
WYCHING	507	71	46	40	71	199	22	58
PACIFIC	29,154	2,905	2,681	1,547	1,440	16,408	1,445	2,728
ALASKA	267	30	23	72	23	70	10	39
CALIFORNIA	21,536	2,219	2,069	966	975	12,277	1,215	1,815
HAWAII	1,355	69	102	112	70	739	40	223
OREGON	2,824	185	289	210	211	1,512	89	328
WASHINGTON	3,172	402	198	187	161	1,810	91	323
OUTLYING AREAS	1,841	169	209	29	154	777	86	417

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-50. -- SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS
BY GEOGRAPHIC DISTRIBUTION, STATUS, AND SEX: JANUARY 1984

DIVISION AND STATE	FULL TIME					PART TIME				
	TOTAL	MEN		WOMEN		TOTAL	MEN		WOMEN	
		NUMBER	PERCENT OF TOTAL	NUMBER	PERCENT OF TOTAL		NUMBER	PERCENT OF TOTAL	NUMBER	PERCENT OF TOTAL
TOTAL, ALL INSTITUTIONS ...	197,508	159,467	80.7%	38,041	19.3%	46,778	34,823	74.4%	11,955	25.6%
NEW ENGLAND	17,786	14,245	80.1	3,541	19.9	5,733	4,344	75.8	1,389	24.2
CONNECTICUT	3,166	2,398	75.7	768	24.3	483	260	53.8	223	46.2
MAINE	404	366	90.6	38	9.4	35	14	40.0	21	60.0
MASSACHUSETTS	12,052	9,659	80.1	2,393	19.9	4,846	3,796	78.3	1,050	21.7
NEW HAMPSHIRE	734	629	85.7	105	14.3	286	221	77.3	65	22.7
RHODE ISLAND	881	754	85.6	127	14.4	35	26	74.3	9	25.7
VERMONT	549	439	80.0	110	20.0	48	27	56.3	21	43.8
MIDDLE ATLANTIC	30,693	24,740	80.6	5,953	19.4	8,518	6,679	78.4	1,839	21.6
NEW JERSEY	3,588	2,977	83.0	611	17.0	985	857	87.0	128	13.0
NEW YORK	17,918	14,312	79.9	3,606	20.1	5,183	3,995	77.1	1,188	22.9
PENNSYLVANIA	9,187	7,451	81.1	1,736	18.9	2,350	1,827	77.7	523	22.3
EAST NORTH CENTRAL	32,634	26,209	80.3	6,425	19.7	9,043	6,626	73.3	2,417	26.7
ILLINOIS	8,793	7,110	80.9	1,683	19.1	1,724	1,260	73.1	464	26.9
INDIANA	4,508	3,729	82.7	779	17.3	1,211	854	70.5	357	29.5
MICHIGAN	6,461	5,185	80.3	1,276	19.7	1,369	960	70.1	409	29.9
OHIO	8,560	6,980	81.5	1,580	18.5	3,327	2,613	78.5	714	21.5
WISCONSIN	4,312	3,705	86.1	607	14.0	1,412	939	66.5	473	33.5
WEST NORTH CENTRAL	16,703	13,627	81.6	3,076	18.4	2,599	1,811	69.7	788	30.3
IOWA	3,296	2,725	82.7	571	17.3	527	334	63.4	193	36.6
KANSAS	2,814	2,105	74.8	709	25.2	399	244	61.2	155	38.8
MINNESOTA	2,965	2,436	82.2	529	17.8	475	360	75.8	115	24.2
MISSOURI	4,492	3,656	81.4	836	18.6	844	635	75.2	209	24.8
NEBRASKA	1,520	1,345	88.5	175	11.5	193	140	72.5	53	27.5
NORTH DAKOTA	872	714	81.9	158	18.1	84	54	64.3	30	35.7
SOUTH DAKOTA	744	646	86.8	98	13.2	77	44	57.1	33	42.9
SOUTH ATLANTIC	33,217	27,018	81.3	6,199	18.7	5,749	4,552	79.2	1,197	20.8
DELAWARE	537	451	84.0	86	16.0	22	11	50.0	11	50.0
DISTRICT OF COLUMBIA	3,116	2,348	75.4	768	24.6	1,804	1,542	85.5	262	14.5
FLORIDA	5,495	4,466	81.3	1,029	18.7	952	787	82.7	165	17.3
GEORGIA	4,221	3,610	85.5	611	14.5	577	479	83.0	98	17.0
MARYLAND	6,170	4,900	79.4	1,270	20.6	1,099	801	72.9	298	27.1
NORTH CAROLINA	5,685	4,769	83.9	916	16.1	457	327	71.6	130	28.4
SOUTH CAROLINA	2,723	2,101	77.2	622	22.8	264	208	78.8	56	21.2
VIRGINIA	4,004	3,342	83.5	662	16.5	438	298	68.0	140	32.0
WEST VIRGINIA	1,266	1,031	81.4	235	18.6	136	99	72.8	37	27.2
EAST SOUTH CENTRAL	10,876	8,947	82.3	1,929	17.7	1,832	1,403	76.6	429	23.4
ALABAMA	3,039	2,607	85.8	432	14.2	470	345	73.4	125	26.6
KENTUCKY	2,669	2,106	78.9	563	21.1	584	438	75.0	146	25.0
MISSISSIPPI	1,567	1,292	82.5	275	17.5	201	153	76.1	48	23.9
TENNESSEE	3,601	2,942	81.7	659	18.3	577	467	80.9	110	19.1
WEST SOUTH CENTRAL	20,929	16,737	80.0	4,192	20.0	3,092	2,265	73.3	827	26.7
ARKANSAS	1,394	1,180	84.6	214	15.4	111	89	79.5	23	20.5
LOUISIANA	4,211	3,242	77.0	969	23.0	748	550	73.5	198	26.5
OKLAHOMA	2,234	1,876	84.0	358	16.0	286	183	64.4	103	35.6
TEXAS	13,090	10,439	79.7	2,651	20.3	1,948	1,443	74.1	505	25.9
MOUNTAIN	11,482	9,569	83.3	1,913	16.7	2,405	1,738	72.3	667	27.7
ARIZONA	2,646	2,192	82.8	454	17.2	468	347	74.1	121	25.9
COLORADO	2,176	1,908	87.7	268	12.3	583	453	77.7	130	22.3
IDAHO	709	613	86.5	96	13.5	72	47	65.3	25	34.7
MONTANA	738	615	83.3	123	16.7	126	62	49.2	64	50.8
NEVADA	326	291	89.3	35	10.7	100	88	88.0	12	12.0
NEW MEXICO	2,218	1,709	77.1	509	22.9	448	294	65.6	154	34.4
UTAH	2,185	1,846	84.5	339	15.5	585	432	73.8	153	26.2
WYOMING	484	395	81.6	89	18.4	23	15	65.2	8	34.8
PACIFIC	21,643	17,472	80.7	4,171	19.3	7,511	5,242	69.8	2,269	30.2
ALASKA	261	235	90.0	26	10.0	6	2	33.3	4	66.7
CALIFORNIA	15,922	12,751	80.1	3,171	19.9	5,614	3,900	69.5	1,714	30.5
HAWAII	1,045	818	78.3	227	21.7	310	206	66.5	104	33.5
OREGON	2,166	1,810	83.6	356	16.4	658	442	67.2	216	32.8
WASHINGTON	2,249	1,858	82.6	391	17.4	923	692	75.0	231	25.0
OUTLYING AREAS	1,545	903	58.4	642	41.6	296	163	55.1	133	44.9

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 8-51. — SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES: JANUARY 1983 AND JANUARY 1984

INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1984	1983	1984	1983	1984	1983	1984	1983
TOTAL, ALL INSTITUTIONS	370,450	358,929	281,561	274,092	88,889	84,837	320,292	306,441
1 HARVARD UNIVERSITY	7,085	6,715	4,716	4,457	2,369	2,258	6,193	5,890
2 OHIO STATE UNIVERSITY	4,586	4,156	2,537	2,446	2,049	1,710	2,779	2,801
3 UNIV OF WIS-MADISON	3,830	3,795	3,121	3,117	709	678	3,524	3,506
4 JOHNS HOPKINS UNIVERSITY	3,633	3,521	3,405	3,329	228	192	3,499	3,395
5 UNIVERSITY OF MINNESOTA	3,440	3,329	2,965	2,862	475	467	2,900	2,791
6 LOUISIANA STATE UNIV	3,282	3,156	2,749	2,627	533	529	2,865	2,729
7 MASS INST OF TECHNOLOGY	3,114	2,956	2,706	2,200	408	256	2,910	2,330
8 UNIVERSITY OF MICHIGAN	3,057	2,622	2,414	2,121	643	501	2,690	2,342
9 UNIV OF CAL LOS ANGELES 1/	2,972	2,998	2,133	2,189	839	809	2,524	2,578
10 CORNELL UNIVERSITY	2,617	2,625	2,442	2,451	175	174	2,540	2,544
TOTAL, 1ST 10 INSTS.	37,616	35,373	29,188	27,799	8,428	7,574	32,426	30,906
11 UNIVERSITY OF FLORIDA	2,562	2,528	2,385	2,359	177	169	2,455	2,423
12 INDIANA UNIVERSITY	2,483	2,444	1,703	1,745	780	699	1,877	1,967
13 UNIV OF ILL URBANA	2,447	2,412	2,175	2,140	272	272	2,323	2,242
14 PENNSYLVANIA STATE UNIV	2,427	2,336	2,125	2,085	302	251	2,235	2,201
15 TEXAS A & M UNIVERSITY	2,418	2,300	2,418	2,300	0	0	2,418	2,300
16 PURDUE UNIVERSITY	2,416	2,408	2,027	2,027	389	381	2,185	2,181
17 UNIVERSITY OF WASHINGTON	2,411	2,408	1,854	1,828	557	580	2,136	2,115
18 COLUMBIA UNIV MAIN DIV	2,385	2,431	1,955	1,965	430	466	2,098	2,121
19 UNIV OF CAL BERKELEY 1/	2,352	2,230	1,552	1,488	800	742	1,914	1,814
20 UNIVERSITY OF PITTSBURGH	2,346	2,110E	1,968	1,780E	378	330E	2,110	1,945E
TOTAL, 1ST 20 INSTS.	61,863	58,980	49,390	47,516	12,513	11,464	54,180	52,217
21 UNIVERSITY OF KENTUCKY	2,286	2,286	1,920	1,920	366	366	2,030	2,030
22 UNIV OF CAL SAN FRANCISCO 1/	2,276	2,169	1,450	1,449	826	720	1,863	1,799
23 UNIV OF CAL DAVIS 1/	2,197	2,005	1,674	1,554	523	451	1,937	1,799
24 HOWARD UNIVERSITY	2,093	1,953	1,154	1,017	939	936	1,378	1,261
25 UNIVERSITY OF IOWA	2,060	1,996	1,730	1,663	330	333	1,858	1,814
26 NEW YORK UNIVERSITY	2,047	2,055	1,391	1,405	656	690	1,534	1,597
27 YALE UNIVERSITY	1,963	1,917	1,785	1,746	178	171	1,881	1,832
28 UNIV OF TEXAS AT AUSTIN	1,906	1,854	1,667	1,624	239	230	1,788	1,737
29 UNIV OF PENNSYLVANIA	1,892	2,385	1,551	1,569	341	816	1,687	1,751
30 N C STATE UNIV AT RALEIGH	1,869	1,856	1,739	1,725	130	131	1,787	1,775
TOTAL, 1ST 30 INSTS.	82,452	79,496	65,411	63,188	17,041	16,308	71,924	69,614
31 MICHIGAN STATE UNIVERSITY	1,844I	1,794	1,738I	1,694	106I	100	1,782	1,734
32 UNIV OF SOUTHERN CAL	1,817	1,652I	1,332	1,296I	485	356I	1,510	1,406I
33 WASHINGTON UNIVERSITY	1,767	1,713	1,609	1,567	158	146	1,634	1,625
34 UNIVERSITY OF UTAH	1,724	1,989	1,230	1,757	494	232	1,436	1,837
35 UNIVERSITY OF ARIZONA	1,708	1,652	1,493	1,468	215	184	1,578	1,544
36 UNIV OF CAL SAN DIEGO 1/	1,698	1,642	1,301	1,329	397	313	1,491	1,491
37 UNIVERSITY OF KANSAS	1,639	1,335	1,452	1,287	187	4C	1,533	1,297I
38 UNIV OF MD COLLEGE PARK	1,611	1,503	1,352	1,276	259	227	1,498	1,355
39 DUKE UNIVERSITY	1,608	1,596	1,503	1,502	105	94	1,555	1,555
40 UNIVERSITY OF CONNECTICUT	1,561	1,571	1,271	1,307	290	264	1,369	1,396
TOTAL, 1ST 40 INSTS.	99,429	95,943	79,692	77,671	19,737	18,272	87,314	84,857
41 RUTGERS THE ST UNIV OF NJ	1,550	1,573	1,507	1,522	43	51	1,520	1,538
42 UNIVERSITY OF CINCINNATI	1,538	1,333	1,317	1,115	221	218	1,385	1,179
43 IOWA ST U OF SCI & TECH	1,530	1,483	1,392	1,358	138	125	1,475	1,434
44 NORTHEASTERN UNIVERSITY	1,519I	1,499I	703I	690I	816I	809I	1,018	1,004I
45 UNIV OF NC AT CHAPEL HILL	1,516	1,228	1,358	1,194	158	34	1,437	1,211
46 CASE WESTERN RESERVE UNIV	1,516	1,639	1,326	1,367	190	272	1,371	1,459
47 UNIV OF ILL CHICAGO 2/	1,493	1,493	1,163	1,156	330	337	1,299	1,286
48 NORTHWESTERN UNIVERSITY	1,460	1,493	1,250	1,252	210	241	1,304	1,330
49 CMU COL ALLEGHENY COUNTY	1,410I	1,311I	104I	101I	1,306I	1,210I	1,070	995I
50 UNIV OF MD BALT PROF SCH	1,389	1,272	884	818	505	454	1,054	1,018
TOTAL, 1ST 50 INSTS.	114,350	110,267	90,696	88,244	23,654	22,023	100,249	97,314

SEE FOOTNOTES AT END OF TABLE.

TABLE 8-51. — SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES: JANUARY 1983 AND JANUARY 1984

- CONTINUED INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1984	1983	1984	1983	1984	1983	1984	1983
51 BOSTON UNIVERSITY	1,379	1,372	869	885	510	487	1,032	1,044
52 MAYNE STATE UNIVERSITY	1,373E	1,373	1,050E	1,050	323E	323	1,144E	1,164
53 NEW MEXICO STATE UNIV	1,362	1,189	1,214	1,116	148	73	1,271	1,150
54 U TEX HLTH SCI CTR DALLAS	1,358	1,237	979	940	379	297	1,128	1,037
55 UNIV OF MISSOURI COLUMBIA	1,357	1,333	1,231	1,196	126	137	1,273	1,243
56 UNIV OF HAWAII-MANOA	1,355	1,316	1,045	1,023	310	293	1,169	1,138
57 TEMPLE UNIVERSITY	1,347	1,330	1,051	1,103	296	227	1,157	1,301I
58 STANFORD UNIVERSITY	1,337	1,382	1,054	1,092	281	290	1,018	1,050I
59 UNIVERSITY OF CHICAGO	1,336	1,342	1,258	1,255	78	87	1,269	1,229
60 SUNY AT STONY BROOK	1,314	1,226	1,164	1,094	150	132	1,221	1,143
TOTAL, 1ST 60 INSTS.	127,868	123,367	101,613	98,998	26,255	24,349	111,954	108,815
61 UNIV ALABAMA BIRMINGHAM	1,302	1,273	1,133	1,103	169	170	1,185	1,144
62 UNIVERSITY OF MIAMI	1,287I	1,264E	1,187I	1,165E	100I	99E	1,219	1,198
63 SUNY AT BUFFALO	1,265I	1,222	925I	901	340I	321	1,043	1,009
64 GEORGE WASHINGTON UNIV	1,238	1,240	658	639	580	601	880	859
65 CUNY MT SINAI SCH OF MED	1,230	1,503I	963	1,213I	267	290I	1,056	1,301I
66 UNIVERSITY OF OKLAHOMA	1,213	1,133	1,082	966	131	167	1,152	1,058I
67 GEORGIA INSTITUTE OF TECH	1,209	1,137	1,130	1,094	79	93	1,164	1,125
68 ARIZONA STATE UNIVERSITY	1,208	736	967	725	241	11	1,070	721
69 YESHIVA UNIVERSITY	1,198	1,122E	860	866E	338	256E	949	988E
70 UNIVERSITY OF GEORGIA	1,197	1,196	1,139	1,144	58	52	1,168	1,168
TOTAL, 1ST 70 INSTS.	140,215	135,243	111,657	108,814	28,558	26,429	122,844	119,388
71 OREGON STATE UNIVERSITY	1,193	1,211	1,049	1,057	144	154	1,109	1,104
72 U TEX HLTH SCI CTR S ANTO	1,185	1,183	967	939	218	244	1,053	1,036
73 KANS ST U - AG & APP SCI	1,183	1,248	1,074	1,054	109	194	1,120	1,153
74 UNIVERSITY OF ROCHESTER	1,181	1,240	1,132	1,189	49	51	1,148	1,208
75 UNIVERSITY OF NEW MEXICO	1,177	1,103	884	792	293	311	1,017	934
76 WEST VIRGINIA UNIVERSITY	1,163	1,168	1,050	1,057	113	111	1,092	1,097
77 AUBURN UNIVERSITY	1,140	1,136	1,035	1,041	105	95	1,072	1,083
78 UNIVERSITY OF VIRGINIA	1,135	1,101	1,067	1,042	68	59	1,067	1,034I
79 UNIV OF SOUTH CAROLINA	1,087	1,122	949	992	138	130	975	1,022
80 VA POLYTECH INST & ST U	1,086	1,095	1,062	1,086	24	9	1,076	1,093
TOTAL, 1ST 80 INSTS.	151,745	146,850	121,926	119,063	29,819	27,787	133,581	130,195
81 COLORADO STATE UNIVERSITY	1,062	1,050	1,007	1,011	55	39	1,000	1,011
82 UNIVERSITY OF COLORADO	1,062	1,555	607	1,416	455	139	852	1,476
83 VANDERBILT UNIVERSITY	1,039	1,053	877	889	162	164	829	915
84 UNIV OF MED & DENT OF N J	1,023I	989I	776I	756I	247I	233I	879I	851I
85 UNIV OF MASS AT AMHERST	1,013	830	949	785	64	45	975	807
86 EMORY UNIVERSITY	993I	977I	835I	820I	158I	157I	873I	859I
87 BAYLOR COL OF MEDICINE	990	918	860	792	130	126	816	769
88 CLEMSON UNIVERSITY	988E	896I	976E	884I	12E	12I	981I	889I
89 U TEX HLTH SCI CTR HOUSTN	988E	1,115	976E	954	12E	161	976I	1,020
90 UNIV OF CAL IRVINE I/	973	963	772	771	201	192	871	857
TOTAL, 1ST 90 INSTS.	161,876	157,196	130,561	128,141	31,315	29,055	142,638	139,612
91 UNIVERSITY OF LOUISVILLE	967	865	749	672	218	193	823	723
92 U TENNESSEE KNOXVILLE	965	929	850	829	115	100	889	869
93 VIRGINIA COMMONWALTH UNIV	943	929	864	849	79	80	895	883
94 GEORGETOWN UNIVERSITY	939	918	885	849	54	69	914	884
95 SOUTHERN ILL U-CARBONDALE	915	967	780	801	135	144	830	849
96 MED UNIV OF SO CAROLINA	912I	886	798I	778	114I	108	803I	783
97 UNIV OF SOUTH FLORIDA	878	709I	653	585I	225	124I	784	623I
98 SUNY DOWNSTATE MED CTR	862I	836I	713I	695I	149I	141I	775I	752I
99 U TEXAS SYSTEM CANCER CTR	855	863	804	799	51	64	827	834
100 NEW YORK MEDICAL COLLEGE	842	864	621	630	221	234	722	739
TOTAL, 1ST 100 INSTS.	170,954	165,962	138,278	135,628	32,676	30,334	150,906	147,384

SEE FOOTNOTES AT END OF TABLE.

TABLE B-51. -- SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES: JANUARY 1983 AND JANUARY 1984

- CONTINUED INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1984	1983	1984	1983	1984	1983	1984	1983
101 U OF ARKANSAS MED SCI CAM	833	808	765	729	68	79	786	756
102 OKLAHOMA STATE UNIVERSITY	823	773	774	724	49	49	798	749
103 TUFTS UNIVERSITY	822I	811I	297I	290I	465I	461I	510I	503I
104 INTER AM U PR-SAN GERMAN	821	698	284	259	537	439	457	448
105 OREGON HLTH SCIENCES UNIV	813I	784I	529I	516I	284I	268I	625I	612I
106 UNIV OF NEBRASKA-LINCOLN	783	780	753	753	30	27	771	769
107 CALIF ST UNIV LONG BEACH	782I	763	396I	388	386I	375	526I	514
108 TEXAS TECH UNIVERSITY	781	773	674	653	107	120	716	694
109 UNIVERSITY OF MISSISSIPPI	776	739	621	600	155	139	673I	142
110 U OF HOUSTON UNIV PARK	774	767	559	546	215	221	633	619
TOTAL, 1ST 110 INSTS.	178,962	173,658	143,990	141,146	34,972	32,512	157,414	153,195
111 WASHINGTON STATE UNIV	761	905I	395	449I	366	436I	541	714I
112 MISSISSIPPI STATE UNIV	752	709	731	689	21	20	698	699
113 -C	118I	705	-C	106I	-C	12I	-C	106I
114 PHILA COL OSTEOPATHIC MED	710	697	109	108	601	597	189	167
115 MEDICAL COL OF GEORGIA	701	497	559	293	142	104	616I	436
116 LOYOLA UNIV - CHICAGO	693	705	399	427	294	278	497	526
117 UNIV TENN CTR HEALTH SCI	689	488	540	528	149	160	570	568
118 SAN JOSE STATE UNIVERSITY	679I	660	381I	374	294I	286	441I	424
119 UNIV OF ARK FAYETTEVILLE	673	702	629	645	44	57	649	649
120 CUYAHOGA CNTY COL DIST	672I	631I	202I	196I	470I	435I	381I	358I
TOTAL, 1ST 120 INSTS.	186,007	179,978	148,471	145,081	37,536	34,897	162,627	157,844
121 CITY COLLEGES OF CHICAGO	672I	653	672I	653	0I	0	672I	653
122 U OF CAL SYS WIDE PRGMS	671	658	645	622	26	36	654	637
123 FLORIDA STATE UNIVERSITY	648	691	628	664	40	25	649	682
124 CUNY NY CITY TECH COL	647I	640	473I	460	194I	180	550I	527I
125 SYRACUSE UNIVERSITY	644	618	559	496	105	122	550	552
126 ST LOUIS COMMUNITY COL	642I	624I	247I	240I	415I	384I	406I	383I
127 UNIV OF CAL SANTA BARBARA 1/	638	623	473	455	185	178	564	542
128 FAIRLEIGH DICKINSON UNIV	635E	655	264E	264	391E	391	365E	365
129 UNIV OF CAL RIVERSIDE 1/	632	645	583	575	69	70	618	612
130 LOMA LINDA UNIVERSITY	632I	642E	458I	450E	194I	192E	557I	549I
TOTAL, 1ST 130 INSTS.	192,628	186,437	153,473	149,962	39,155	36,475	168,216	163,349
131 SAN DIEGO STATE UNIV	648	682	477	500	171	182	542	558
132 UNIV OF P R-RIO PIEDRAS	639	900	517	779	122	121	578E	822E
133 CAL POLY ST U SAN LUIS OB	634	620	522	507	112	113	559	544
134 UNIV OF P R-MED SCI CNPUS	629I	610	536I	522	93I	88	537I	522
135 DARTMOUTH COLLEGE	622	608	353	356	269	252	391	392
136 ST LOUIS UNIVERSITY	615	590	517	489	98	101	553	523
137 TULANE UNIVERSITY	608I	597	536I	526	72I	71	558I	548
138 MONTANA STATE UNIVERSITY	602E	586	499E	485	103E	101	541I	526
139 UNIV OF VT & ST AGRIC COL	597	613	549	571	48	42	568	587
140 UNIVERSITY OF IDAHO	594	644	567	609	27	35	582	628
TOTAL, 1ST 140 INSTS.	198,816	192,887	158,546	155,306	40,270	37,581	173,629	169,002
141 INTER AM U PR-CTRL OFF	585	621	228	239	357	382	355	372
142 BRIGHAM YOUNG UNIVERSITY	579	647	514	576	65	71	536	598
143 SUNY BASSAU CNTY COLLEGE	579	629	256	269	323	360	350	352
144 UNIV OF WIS-MILWAUKEE	562	545	272	304	290	241	411	413
145 NORTHERN VA COMMUNITY COL	561	582	196	225	365	357	331	329
146 UNIVERSITY OF DELAWARE	559	583	537	564	22	17	547	574
147 CALIF ST POLY UNIV POMONA	552	547	332	334	221	213	383	401
148 CALIF ST UNIV FULLERTON	550I	537	273I	268	277I	269	356I	347I
149 ALAMO CNTY COL DIST	540	417I	313	244I	227	173I	415	350I
150 PRINCETON UNIVERSITY	536	547	492	501	44	46	506	527
TOTAL, 1ST 150 INSTS.	204,420	198,342	161,959	158,832	42,461	39,710	177,822	173,268

SEE FOOTNOTES AT END OF TABLE.

TABLE B-51. — SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES: JANUARY 1983 AND JANUARY 1984

- CONTINUED INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1984	1983	1984	1983	1984	1983	1984	1983
151 CALIFORNIA INST OF TECH	525	540	521	526	14	14	530	534
152 SUNY AT ALBANY	532	506	438	430	94	76	450	453
153 MONTGOMERY COLLEGE	530I	499I	176I	171I	354I	328I	312I	294I
154 MARQUETTE UNIVERSITY	519	517	290	293	229	224	265	267
155 LONG ISLAND UNIVERSITY	517	529I	299	308I	218	221I	429I	388I
156 MIAMI-DADE CNTY COLLEGE	517	536	313	317	204	219	399	411
157 WRIGHT STATE UNIVERSITY	515	474	401	392	114	82	415	394
158 OHIO UNIVERSITY	507	480	394	386	113	94	438	433
159 UNIVERSITY OF WYOMING	507	539	484	511	23	28	502	525
160 WAKE FOREST UNIVERSITY	504	497	492	489	12	8	496	492
TOTAL, 1ST 160 INSTS.	209,603	203,659	165,767	162,655	43,836	41,004	182,161	177,563
161 SOUTH DAKOTA STATE UNIV	503E	502I	482E	481I	21E	21I	493I	492I
162 CALIF ST UNIV SACRAMENTO	500	517	351	371	149	146	392	421
163 CALIF ST UNIV NORTHRIDGE	498I	487E	310I	304E	188I	183E	361I	353E
164 U TEX MED BRNCH GALVESTON	495	471	495	471	0	0	495	471
165 NORTH DAKOTA STATE UNIV	495	485	473	464	22	21	481	472
166 THOMAS JEFFERSON UNIV	494	360	445	322	49	38	448I	330
167 ROCKEFELLER UNIVERSITY	489	456	465	435	24	21	478	443
168 SAN FRANCISCO STATE UNIV	488	559	254	299	234	260	332	409
169 EAST CAROLINA UNIVERSITY	484	473	443	413	41	60	477	466
170 CARNEGIE-MELLON UNIV	483	629I	454	555I	29	74I	406	587I
TOTAL, 1ST 170 INSTS.	214,532	208,598	169,939	166,770	44,593	41,828	186,548	182,010
171 KENT STATE UNIVERSITY	479	486	406	422	73	64	438	450
172 CHEYNEY UNIV OF PENN	478I	449I	478I	449I	0I	0I	478I	449I
173 SINCLAIR COMMUNITY COL	470	504	168	160	302	344	277	293
174 UTAH STATE UNIVERSITY	467	467	441	441	26	26	450	452
175 CALIF ST UNIV LOS ANGELES	464	442	246	247	218	195	326	314
176 UNIVERSITY OF N DAKOTA	461	395	399	351	62	44	423	366
177 CUNY QUEENS COLLEGE	455I	445I	268I	263I	187I	182I	349I	341I
178 UNIVERSITY OF TOLEDO	453	399	314	293	139	106	382	333
179 HENSSELAER POLYTECH INST	453	435	396	405	57	30	422	415
180	-C	-C	-C	-C	-C	-C	-C	-C
TOTAL, 1ST 180 INSTS.	219,160	212,962	173,271	170,008	45,889	42,954	190,391	185,639
181 CUNY CITY COLLEGE	446I	432I	360I	351I	86I	81I	392I	381I
182 CALIF STATE UNIV FRESNO	444	433	323	316	121	117	362I	348I
183 UNIV OF MAINE ORONO	439E	439	404E	404	35E	35	421E	421
184 NORTHERN ILLINOIS UNIV	437	400	383	348	54	52	407	372
185 N J INST OF TECHNOLOGY	432	425	279	275	153	150	319	304
186 UNIVERSITY OF DAYTON	430	423	327	319	103	104	183	170
187 U OF NEB MED CTR AT OMAHA	427I	414I	355I	346I	72I	68I	384I	372I
188 NEW YORK INST TECHNOLOGY	426	444I	205	201I	221	243I	279	286I
189 FLORIDA INST OF TECH	422	426	162	155	260	271	246	241
190 UNIV OF MISSOURI KAN CITY	422	383	278	286	144	97	312	318
TOTAL, 1ST 190 INSTS.	223,485	217,181	176,347	173,009	47,138	44,172	193,700	188,856
191 YOUNGSTOWN ST UNIVERSITY	422I	413	227I	223	195I	190	247I	223
192 THE UNIVERSITY OF ALABAMA	421	421	384	384	37	37	402	402
193 UNIV OF RHODE ISLAND	420	418	420	418	0	0	420	418
194 UNIVERSITY OF NOTRE DAME	418	402	376	372	42	30	397	390
195 US AIR FORCE ACADEMY	417I	406I	417I	406I	0I	0I	417I	406I
196 INST OF AGRI UNIV OF TENN	413	399	413	399	0	0	413	399
197	-C	-C	-C	-C	-C	-C	-C	-C
198 MIAMI UNIVERSITY (OHIO)	407	431	354	355	53	76	372	380
199 UNIV OF SOUTH ALABAMA	404	383	339	328	65	55	370E	352
200 ILLINOIS STATE UNIVERSITY	402	411	331	341	71	70	364	357
TOTAL, 1ST 200 INSTS.	227,620	221,239	179,923	176,551	47,697	44,688	197,446	192,515
TOTAL, ALL OTHER SAMPLED INSTS.	83,658	137,690	59,003	97,541	24,655	40,149	69,612	113,927
ESTIMATED TOTAL NON-SAMPLED INSTS.	59,172	0	42,635	0	16,537	0	53,234	0

1/ THE UNIVERSITY OF CALIFORNIA SYSTEM REPORTED SIGNIFICANT CHANGES IN JANUARY 1984 COMPARED TO PREVIOUS YEARS, AS THE RESULT OF RECLASSIFYING SCIENCE AND ENGINEERING (S/E) AWARDS AND RESTRUCTURING SOME S/E DEPARTMENTS.
2/ DATA REPRESENT COMBINED TOTALS FOR THE UNIVERSITY OF ILLINOIS CHICAGO CIRCLE AND THE UNIVERSITY OF ILLINOIS MEDICAL CENTER.
NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED. DASHES INDICATE THAT DATA ARE NOT AVAILABLE; DASHES FOLLOWED BY "C" INDICATE CONFIDENTIAL DATA.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-52. — SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1983 AND JANUARY 1984

INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1984	1983	1984	1983	1984	1983	1984	1983
TOTAL, ALL INSTITUTIONS	244,286	236,545	197,508	192,756	46,778	43,789	214,385	208,243
1 HARVARD UNIVERSITY	7,085	6,715	4,716	4,457	2,369	2,258	6,193	5,890
2 OHIO STATE UNIVERSITY	4,586	4,156	2,537	2,446	2,049	1,710	2,779	2,801
3 UNIV OF WIS-MADISON	3,830	3,795	3,121	3,117	709	678	3,524	3,506
4 JOHNS HOPKINS UNIVERSITY	3,633	3,521	3,405	3,329	228	192	3,499	3,395
5 UNIVERSITY OF MINNESOTA	3,440	3,329	2,965	2,862	475	467	2,900	2,791
6 LOUISIANA STATE UNIV	3,282	3,156	2,749	2,627	533	529	2,865	2,729
7 MASS INST OF TECHNOLOGY	3,114	2,456	2,706	2,200	408	256	2,910	2,330
8 UNIVERSITY OF MICHIGAN	3,057	2,622	2,414	2,121	643	501	2,690	2,342
9 UNIV OF CAL LOS ANGELES 1/	2,972	2,998	2,133	2,189	839	809	2,524	2,578
10 CORNELL UNIVERSITY	2,617	2,625	2,442	2,451	175	174	2,540	2,544
TOTAL, 1ST 10 INSTS.	37,616	35,373	29,188	27,799	8,428	7,574	32,426	30,906
11 UNIVERSITY OF FLORIDA	2,562	2,528	2,385	2,359	177	169	2,455	2,423
12 INDIANA UNIVERSITY	2,483	2,444	1,703	1,745	780	699	1,877	1,967
13 UNIV OF ILL URBANA	2,447	2,412	2,175	2,140	272	272	2,323	2,242
14 PENNSYLVANIA STATE UNIV	2,427	2,336	2,125	2,085	302	251	2,235	2,201
15 TEXAS A & M UNIVERSITY	2,418	2,300	2,418	2,300	0	0	2,418	2,300
16 PURDUE UNIVERSITY	2,416	2,408	2,027	2,027	389	381	2,185	2,181
17 UNIVERSITY OF WASHINGTON	2,411	2,408	1,854	1,828	557	530	2,136	2,115
18 COLUMBIA UNIV MAIN DIV	2,385	2,431	1,955	1,965	430	466	2,098	2,121
19 UNIV OF CAL BERKELEY 1/	2,352	2,230	1,552	1,488	800	742	1,914	1,814
20 UNIVERSITY OF PITTSBURGH	2,346	2,110E	1,966	1,780E	378	330E	2,110	1,945E
TOTAL, 1ST 20 INSTS.	61,863	58,980	49,350	47,516	12,513	11,444	54,180	52,217
21 UNIVERSITY OF KENTUCKY	2,286	2,286	1,920	1,920	366	366	2,030	2,030
22 UNIV OF CAL SAN FRANCISCO 1/	2,276	2,169	1,450	1,449	826	720	1,863	1,799
23 UNIV OF CAL DAVIS 1/	2,197	2,005	1,674	1,554	523	451	1,937	1,799
24 HOWARD UNIVERSITY	2,093	1,953	1,154	1,017	939	936	1,378	1,261
25 UNIVERSITY OF IOWA	2,060	1,996	1,730	1,663	330	333	1,858	1,814
26 NEW YORK UNIVERSITY	2,047	2,095	1,391	1,405	656	690	1,534	1,597
27 YALE UNIVERSITY	1,963	1,917	1,785	1,746	178	171	1,881	1,832
28 UNIV OF TEXAS AT AUSTIN	1,906	1,854	1,667	1,624	239	230	1,788	1,737
29 UNIV OF PENNSYLVANIA	1,892	2,385	1,551	1,569	341	816	1,687	1,751
30 N C STATE UNIV AT RALEIGH	1,869	1,856	1,739	1,725	130	131	1,787	1,775
TOTAL, 1ST 30 INSTS.	82,452	79,496	65,411	63,188	17,041	16,308	71,924	69,614
31 MICHIGAN STATE UNIVERSITY	1,844I	1,794	1,738I	1,694	106I	100	1,782	1,734
32 UNIV OF SOUTHERN CAL	1,817	1,652I	1,332	1,296I	485	356I	1,510	1,406I
33 WASHINGTON UNIVERSITY	1,767	1,713	1,609	1,567	158	146	1,634	1,625
34 UNIVERSITY OF UTAH	1,724	1,989	1,230	1,757	494	232	1,436	1,837
35 UNIVERSITY OF ARIZONA	1,708	1,652	1,493	1,468	215	184	1,578	1,544
36 UNIV OF CAL SAN DIEGO 1/	1,698	1,642	1,301	1,329	397	313	1,491	1,491
37 UNIVERSITY OF KANSAS	1,639	1,335	1,452	1,287	187	48	1,533	1,297I
38 UNIV OF MD COLLEGE PARK	1,611	1,503	1,352	1,276	259	227	1,498	1,355
39 DUKE UNIVERSITY	1,608	1,596	1,503	1,502	105	94	1,555	1,555
40 UNIVERSITY OF CONNECTICUT	1,561	1,571	1,271	1,307	290	264	1,369	1,396
TOTAL, 1ST 40 INSTS.	99,429	95,943	79,692	77,671	19,737	18,272	87,314	84,857
41 RUTGERS THE ST UNIV OF NJ	1,550	1,573	1,507	1,522	43	51	1,520	1,538
42 UNIVERSITY OF CINCINNATI	1,538	1,333	1,317	1,115	221	218	1,385	1,179
43 IOWA ST U OF SCI & TECH	1,530	1,483	1,392	1,358	138	125	1,475	1,434
44 NORTHEASTERN UNIVERSITY	1,519I	1,499I	703I	690I	816I	809I	1,018	1,004I
45 UNIV OF NC AT CHAPEL HILL	1,516	1,228	1,358	1,194	158	34	1,437	1,211
46 CASE WESTERN RESERVE UNIV	1,516	1,639	1,326	1,367	190	272	1,371	1,459
47 UNIV OF ILL CHICAGO 2/	1,493	1,493	1,163	1,156	330	337	1,299	1,286
48 NORTHWESTERN UNIVERSITY	1,460	1,493	1,250	1,252	210	241	1,304	1,330
49 UNIV OF MD BALT PROF SCH	1,389	1,272	884	818	505	454	1,054	1,018
50 BOSTON UNIVERSITY	1,379	1,372	869	885	510	487	1,032	1,044
TOTAL, 1ST 50 INSTS.	114,319	110,328	91,461	89,028	22,858	21,300	100,210	97,363

SEE FOOTNOTES AT END OF TABLE.

TABLE B-52. — SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1983 AND JANUARY 1984

- CONTINUED INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1984	1983	1984	1983	1984	1983	1984	1983
51 WAYNE STATE UNIVERSITY	1,373E	1,373	1,050E	1,050	323E	323	1,164E	1,164
52 NEW MEXICO STATE UNIV	1,362	1,189	1,214	1,114	148	73	1,271	1,150
53 U TEX HLTH SCI CTR DALLAS	1,358	1,237	979	940	379	297	1,128	1,037
54 UNIV OF MISSOURI COLUMBIA	1,357	1,333	1,231	1,194	126	137	1,273	1,243
55 UNIV OF HAWAII-MANOA	1,355	1,316	1,045	1,023	310	293	1,169	1,138
56 TEMPLE UNIVERSITY	1,347	1,330	1,051	1,103	296	227	1,157	1,301I
57 STANFORD UNIVERSITY	1,337	1,382	1,054	1,092	281	290	1,018	1,050I
58 UNIVERSITY OF CHICAGO	1,336	1,342	1,258	1,255	78	87	1,269	1,229
59 SUNY AT STONY BROOK	1,314	1,226	1,144	1,094	150	132	1,221	1,143
60 UNIV ALABAMA BIRMINGHAM	1,302	1,273	1,133	1,103	169	170	1,185	1,144
TOTAL, 1ST 60 INST.	127,760	123,329	102,642	100,000	25,118	23,329	112,068	108,965
61 UNIVERSITY OF MIAMI	1,287I	1,264E	1,187I	1,145E	100I	99E	1,219	1,198
62 SUNY AT BUFFALO	1,265I	1,222	925I	901	340I	321	1,043	1,009
63 GEORGE WASHINGTON UNIV	1,238	1,240	658	639	580	601	880	859
64 CUNY MT SINAI SCH OF MED	1,230	1,503I	963	1,213I	267	290I	1,054	1,301I
65 UNIVERSITY OF OKLAHOMA	1,213	1,133	1,082	964	131	167	1,152	1,058I
66 GEORGIA INSTITUTE OF TECH	1,209	1,187	1,130	1,094	79	93	1,164	1,125
67 ARIZONA STATE UNIVERSITY	1,208	736	967	725	241	11	1,070	721
68 YESHIVA UNIVERSITY	1,198	1,122E	860	866E	338	256E	949	988E
69 UNIVERSITY OF GEORGIA	1,197	1,196	1,139	1,144	58	52	1,168	1,168
70 OREGON STATE UNIVERSITY	1,193	1,211	1,049	1,057	144	154	1,109	1,104
TOTAL, 1ST 70 INST.	139,998	135,143	112,602	109,770	27,396	25,373	122,882	119,497
71 U TEX HLTH SCI CTR S ANTO	1,185	1,183	967	939	218	244	1,053	1,036
72 KANS ST U - AG & APP SCI	1,183	1,248	1,074	1,054	109	194	1,120	1,153
73 UNIVERSITY OF ROCHESTER	1,181	1,240	1,132	1,189	49	51	1,148	1,208
74 UNIVERSITY OF NEW MEXICO	1,177	1,103	884	792	293	311	1,017	934
75 WEST VIRGINIA UNIVERSITY	1,163	1,168	1,050	1,057	113	111	1,092	1,097
76 AUBURN UNIVERSITY	1,140	1,136	1,035	1,041	105	95	1,072	1,083
77 UNIVERSITY OF VIRGINIA	1,135	1,101	1,067	1,042	68	59	1,067	1,034I
78 UNIV OF SOUTH CAROLINA	1,087	1,122	949	992	138	130	979	1,022
79 VA POLYTECH INST & ST U	1,086	1,095	1,062	1,086	24	9	1,076	1,093
80 COLORADO STATE UNIVERSITY	1,062	1,050	1,007	1,011	55	39	1,000	1,011
TOTAL, 1ST 80 INST.	151,397	146,589	122,829	119,973	28,568	26,616	133,510	130,171
81 UNIVERSITY OF COLORADO	1,062	1,555	607	1,416	455	139	852	1,476
82 YANDERBILT UNIVERSITY	1,039	1,053	877	889	162	164	829	915
83 UNIV OF MED & DENT OF N J	1,023I	989I	776I	756I	247I	233I	879I	851I
84 UNIV OF MASS AT AMHERST	1,013	830	949	785	64	45	975	807
85 EMGW UNIVERSITY	993I	977I	835I	820I	158I	157I	873I	859I
86 BAYLOR COL OF MEDICINE	990	918	860	792	130	126	816	769
87 U TEX HLTH SCI CTR HOUSTN	988E	1,115	976E	954	12E	141	976I	1,020
88 CLEMSON UNIVERSITY	988E	896I	976E	884I	12E	12I	981I	889I
89 UNIV OF CAL IRVINE 1/	973	963	772	771	201	192	871	857
90 UNIVERSITY OF LOUISVILLE	967	865	749	672	218	193	823	723
TOTAL, 1ST 90 INST.	161,433	156,750	131,206	128,712	30,227	28,038	142,390	139,340
91 U TENNESSEE KNOXVILLE	965	929	850	829	115	100	889	869
92 VIRGINIA COMMONWLTN UNIV	943	929	864	849	79	80	895	883
93 GEORGETOWN UNIVERSITY	939	918	885	849	54	69	914	884
94 SOUTHERN ILL U-CARBONDALE	915	967	780	801	135	166	830	849
95 MED UNIV OF SO CAROLINA	912I	886	798I	778	114I	108	803I	613
96 UNIV OF SOUTH FLORIDA	878	709I	653	585I	225	124I	786	623I
97 SUNY DOMMSTATE MED CTR	862I	836I	713I	695I	149I	141I	775I	752I
98 U TEXAS SYSTEM CANCER CTR	855	863	804	799	51	64	827	834
99 NEW YORK MEDICAL COLLEGE	842	864	621	630	221	234	722	739
100 U OF ARKANSAS MED SCI CAM	833	808	765	729	68	79	786	756
TOTAL, 1ST 100 INST.	170,377	165,459	138,939	136,256	31,438	29,203	150,621	147,145
TOTAL, ALL OTHER INST.	73,909	71,086	58,569	56,500	15,340	14,586	63,764	61,097

1/ THE UNIVERSITY OF CALIFORNIA SYSTEM REPORTED SIGNIFICANT CHANGES IN JANUARY 1984 COMPARED TO PREVIOUS YEARS, AS THE RESULT OF RECLASSIFYING SCIENCE AND ENGINEERING (S/E) AWARDS AND RESTRUCTURING SOME S/E DEPARTMENTS.

2/ DATA REPRESENT COMBINED TOTALS FOR THE UNIVERSITY OF ILLINOIS CHICAGO CIRCLE AND THE UNIVERSITY OF ILLINOIS MEDICAL CENTER.

NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED.

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SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-53. — ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1983 AND JANUARY 1984

INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1984	1983	1984	1983	1984	1983	1984	1983
TOTAL, ALL INSTITUTIONS	27,189	26,183	22,513	21,857	4,676	4,326	24,117	23,312
1 JOHNS HOPKINS UNIVERSITY	1,046	973	1,033	963	13	10	1,035	968
2 MASS INST OF TECHNOLOGY	920	833	807	756	113	77	864	795
3 GEORGIA INSTITUTE OF TECH	727	724	686	667	41	37	702	686
4 PENNSYLVANIA STATE UNIV	689	654	627	622	62	32	644	631
5 PURDUE UNIVERSITY	636	634	527	533	99	101	569	575
6 UNIV OF CAL BERKELEY 1/	536	458	344	317	192	141	439	386
7 UNIV OF ILL URBANA	423	408	378	377	45	31	399	387
8 TEXAS A & M UNIVERSITY	417	412	417	412	0	0	417	412
9 UNIVERSITY OF MICHIGAN	410	407	328	334	82	73	375	377
10 IOWA ST U OF SCI & TECH	399	389	356	363	43	26	380	377
TOTAL, 1ST 10 INSTS.	6,193	5,892	5,503	5,344	690	548	5,829	5,596
11 STANFORD UNIVERSITY	392	403	254	277	138	126	263	279
12 UNIV OF WIS-MADISON	384	369	304	309	80	60	345	342
13 OHIO STATE UNIVERSITY	350	311	301	284	49	25	317	295
14 N C STATE UNIV AT RALEIGH	347	345	324	314	23	31	332	324
15 POLYTECHNIC INST OF N Y	343	227	146	120	197	107	212	156
16 CORNELL UNIVERSITY	327	352	305	340	22	12	326I	351I
17 VA POLYTECH INST & ST U	317	320	309	316	8	4	314	319
18 UNIVERSITY OF WASHINGTON	309	304	264	263	45	41	285	282
19 UNIV OF MD COLLEGE PARK	300	270	214	193	84	77	245	207
20 UNIV OF TEXAS AT AUSTIN	297	294	248	242	49	52	267	263
TOTAL, 1ST 20 INSTS.	9,559	9,087	8,172	8,004	1,387	1,083	8,738	8,417
21 UNIV OF CAL LOS ANGELES 1/	295	241	200	174	95	67	242	202
22 NORTHEASTERN UNIVERSITY	285I	282I	158I	156I	127I	126I	207I	205I
23 NEW MEXICO STATE UNIV	284	208	258	197	26	11	268	202
24 U TENNESSEE KNOXVILLE	270	263	240	237	30	26	248	248
25 ARIZONA STATE UNIVERSITY	270	214	193	210	77	4	224	212
26 UNIVERSITY OF MINNESOTA	250	244	200	193	50	51	210	211
27 UNIVERSITY OF UTAH	250	194	139	150	111	44	184	166
28 UNIVERSITY OF FLORIDA	249	235	239	221	10	14	244	227
29 U OF HOUSTON UNIV PARK	248	241	127	120	121	121	174	170
30 UNIV OF SOUTHERN CAL	244	151I	157	130I	87	21I	196	135I
TOTAL, 1ST 30 INSTS.	12,204	11,360	10,083	9,792	2,121	1,568	10,939	10,398
31 RENSSELAER POLYTECH INST	242	236	207	219	35	17	226	225
32 AUBURN UNIVERSITY	229	225	214	213	15	12	221	219
33 UNIVERSITY OF NEW MEXICO	223	188	152	120	71	68	182	149
34 N J INST OF TECHNOLOGY	218	219	146	143	72	76	165	143
35 UNIV OF MISSOURI ROLLA	214	204	205	198	9	6	207	201
36 KANS ST U - AG & APP SCI	194	197	176	154	18	43	185	177
37 UNIVERSITY OF CINCINNATI	193	212	140	135	53	77	154	155
38 UNIVERSITY OF KENTUCKY	190	190	161	161	29	29	169	169
39 UNIVERSITY OF ARIZONA	190	166	169	156	21	10	178	160
40 UNIVERSITY OF COLORADO	184	155	128	145	56	10	141	150
TOTAL, 1ST 40 INSTS.	14,281	13,352	11,781	11,436	2,500	1,916	12,772	12,143
41 CLEMSON UNIVERSITY	180I	163I	179I	162I	1I	1I	180I	163I
42 GEORGE WASHINGTON UNIV	180	191	67	62	113	129	97	95
43 UNIVERSITY OF OKLAHOMA	178	115	161	108	17	7	166	110
44 OKLAHOMA STATE UNIVERSITY	173	180	159	159	14	21	164	169
45 UNIVERSITY OF DAYTON	172	172	119	125	53	47	68	61
46 LOUISIANA STATE UNIV	171	169	157	155	14	14	158	156
47 NORTHWESTERN UNIVERSITY	171	172	152	160	19	11	162	160
48 COLORADO STATE UNIVERSITY	166	173	156	162	10	11	155	162
49 CARNEGIE-MELLON UNIV	164	227I	156	177I	8	50I	136	198I
50 UNIV OF NEBRASKA-LINCOLN	159	143	152	137	7	6	156	140
TOTAL, 1ST 50 INSTS.	15,995	15,057	13,239	12,843	2,756	2,214	14,216	13,544

SEE FOOTNOTES AT END OF TABLE.

TABLE B-53. -- ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1983 AND JANUARY 1984

- CONTINUED INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1984	1983	1984	1983	1984	1983	1984	1983
51 MICHIGAN TECH UNIVERSITY	158	159	154	153	4	6	156	155
52 SYRACUSE UNIVERSITY	155	141	93	87	62	54	123	97
53 UNIVERSITY OF PITTSBURGH	154	183E	130	161E	24	22E	139	172E
54 ILLINOIS INST OF TECH	154	165	94	104	60	61	106	124
55 OREGON STATE UNIVERSITY	148	139	137	127	11	12	141	130
56 TEXAS TECH UNIVERSITY	148	149	128	129	20	20	136	135
57 UNIV OF MASS AT AMHERST	144	155	139	149	7	6	142	151
58 MISSISSIPPI STATE UNIV	144	142	143	141	3	1	149	141
59 UNIVERSITY OF CONNECTICUT	144	172	122	138	24	34	125	156
60 UNIV OF P R-MAYAGUEZ	141	135	120	94	21	39	44	114
TOTAL, 1ST 60 INSTS.	17,491	16,597	14,499	14,128	2,992	2,469	15,431	14,943
61 UNIVERSITY OF VIRGINIA	140	133	131	124	5	9	129	123
62 DREXEL UNIVERSITY	139	138	106	104	33	34	118	118
63 MICHIGAN STATE UNIVERSITY	134I	130	127I	124	7I	6	130I	127
64 HOWARD UNIVERSITY	134	81	103	58	31	23	115	65
65 CALIFORNIA INST OF TECH	129	136	127	134	2	2	128	135
66 COLUMBIA UNIV MAIN DIV	127	139	103	117	24	22	111	124
67 UNIVERSITY OF TOLEDO	126	106	82	78	44	28	98	83
68 CASE WESTERN RESERVE UNIV	125	121	125	121	0	0	125	121
69 THE UNIVERSITY OF ALABAMA	122	122	109	109	13	13	114	114
70 UNIVERSITY OF KANSAS	121	124	121	124	0	0	121	124I
TOTAL, 1ST 70 INSTS.	18,788	17,827	15,633	15,221	3,155	2,406	16,673	16,079
71 LEHIGH UNIVERSITY	121	117	118	108	3	9	119	112
72 UTAH STATE UNIVERSITY	120	120	113	113	7	7	115	117
73 WEST VIRGINIA UNIVERSITY	120	130	106	112	14	18	112	119
74 RUTGERS THE ST UNIV OF NJ	119	124	117	120	2	4	117	121
75 SOUTHERN ILL U-CARBONDALE	118	108	102	101	16	7	108	103
76 UNIV OF PENNSYLVANIA	116	244	81	86	35	160	89	111
77 UNIV OF MISSOURI COLUMBIA	115	113	110	109	5	4	113	111
78 WORCESTER POLY INSTITUTE	112	107	95	94	17	13	100	96
79 COLORADO SCHOOL OF MINES	111	111	91	91	20	20	95I	95I
80 UNIV OF CAL DAVIS 1/	109	114	78	75	31	39	92	92
TOTAL, 1ST 80 INSTS.	19,949	19,117	16,644	16,230	3,305	2,887	17,737	17,158
81 SUNY AT BUFFALO	109I	106	88I	86	21I	20	97I	95
82 STEVENS INSTITUTE OF TECH	107I	106I	77I	76I	30I	30I	86I	85I
83 EMORY UNIVERSITY	106I	105I	92I	91I	14I	14I	93I	92I
84 INDIANA UNIVERSITY	106	94	48	45	58	49	60	56
85 UNIV OF TEX AT ARLINGTON	103	95	73	71	30	24	84	79
86 UNIVERSITY OF DELAWARE	102	110	96	106	6	4	98	107
87 MAYNE STATE UNIVERSITY	102	102	64	64	38	38	78	78
88 US NAVAL POSTGRAD SCHOOL	101	89	93	89	8	0	101I	89
89 UNIV OF ILL CHICAGO 2/	100	106	92	93	8	13	91	97
90 UNIV OF ARK FAYETTEVILLE	97	104	94	102	3	2	95	102
TOTAL, 1ST 90 INSTS.	20,982	20,134	17,461	17,053	3,521	3,081	18,624	18,042
91 PRINCETON UNIVERSITY	95	98	90	93	5	5	92	97
92 SAN DIEGO STATE UNIV	95	90	62	50	33	40	68	64
93 BOSTON UNIVERSITY	95	96	48	42	47	54	63	60
94 UNIVERSITY OF LOWELL	95	97	88	87	7	10	90I	92
95 UNIV OF CENTRAL FLORIDA	94	104	83	94	11	10	84	96
96 RICE UNIVERSITY	94	95	72	75	22	20	79	83
97 UNIVERSITY OF MIAMI	94I	93	70I	69	24I	24	74I	74
98 WASHINGTON STATE UNIV	93	139I	81	57I	12	82I	101	109I
99 UNIV OF WIS-MILWAUKEE	92	116	47	64	45	52	76	91
100 MONTANA STATE UNIVERSITY	91I	89	81I	79	10I	10	85I	84
TOTAL, 1ST 100 INSTS.	21,920	21,151	18,183	17,763	3,737	3,388	19,439	18,893
TOTAL, ALL OTHER INSTS.	5,269	5,032	4,330	4,094	939	938	4,678	4,418

1/ THE UNIVERSITY OF CALIFORNIA SYSTEM REPORTED SIGNIFICANT CHANGES IN JANUARY 1984 COMPARED TO PREVIOUS YEARS, AS THE RESULT OF RECLASSIFYING SCIENCE AND ENGINEERING (S/E) AWARDS AND RESTRUCTURING SOME S/E DEPARTMENTS.

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SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-54. -- PHYSICAL SCIENTISTS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1983 AND JANUARY 1984

INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1984	1983	1984	1983	1984	1983	1984	1983
TOTAL, ALL INSTITUTIONS	20,127	19,498	17,321	17,116	2,606	2,382	18,626	18,033
1 MASS INST OF TECHNOLOGY	648	535	626	509	42	26	647	522
2 UNIV OF TEXAS AT AUSTIN	448	416	401	378	47	38	432	402
3 UNIV OF CAL BERKELEY 1/	419	365	239	186	180	179	319	262
4 JOHNS HOPKINS UNIVERSITY	410	414	409	410	1	4	409	412
5 UNIV OF MD COLLEGE PARK	373	386	336	342	37	44	360	359
6 PURDUE UNIVERSITY	291	281	264	253	25	28	274	264
7 UNIVERSITY OF MICHIGAN	288	220	243	206	25	14	274	212
8 UNIVERSITY OF COLORADO	276	201	104	196	170	5	219	199
9 HARVARD UNIVERSITY	273	255	258	235	15	20	262	244
10 UNIV OF ILL URBANA	271	282	252	260	19	22	261	269
TOTAL, 1ST 10 INSTS.	3,717	3,355	3,156	2,975	561	380	3,440	3,147
11 INDIANA UNIVERSITY	242	242	197	201	45	41	207	215
12 PENNSYLVANIA STATE UNIV	240	234	194	196	46	38	210	216
13 UNIV OF WIS-MADISON	234	229	201	197	33	32	220	217
14 CORNELL UNIVERSITY	230	249	219	234	11	15	224	243
15 CALIFORNIA INST OF TECH	228	224	224	221	4	3	223	223
16 OHIO STATE UNIVERSITY	226	202	196	178	30	24	206	187
17 UNIVERSITY OF UTAH	224	159	126	139	98	20	172	152
18 NORTHEASTERN UNIVERSITY	222	219	101	99	121	120	147	145
19 UNIVERSITY OF ARIZONA	220	204	208	191	12	13	212	196
20 UNIV OF CAL LOS ANGELES 1/	216	205	166	148	50	57	195	180
TOTAL, 1ST 20 INSTS.	5,999	5,522	4,988	4,779	1,011	743	5,483	5,123
21 MICHIGAN STATE UNIVERSITY	201	196	199	194	21	2	199	195
22 UNIV OF CAL SAN DIEGO 1/	196	191	146	163	50	28	164	174
23 SUNY AT STONY BROOK	194	196	189	192	5	4	192	193
24 RUTGERS THE ST UNIV OF NJ	189	190	168	175	21	15	175	180
25 GEORGIA INSTITUTE OF TECH	186	183	174	176	12	7	182	180
26 UNIVERSITY OF CHICAGO	183	177	171	164	12	13	177	169
27 UNIV OF CAL SANTA BARBARA 1/	174	159	107	104	67	55	147	135
28 UNIVERSITY OF PITTSBURGH	169	168	158	158	11	10	163	163
29 STANFORD UNIVERSITY	157	170	134	140	23	30	133	139
30 UNIVERSITY OF WASHINGTON	155	166	133	134	22	32	146	152
TOTAL, 1ST 30 INSTS.	7,803	7,318	6,567	6,379	1,236	939	7,163	6,805
31 UNIVERSITY OF MINNESOTA	155	169	148	162	7	7	150	156
32 UNIVERSITY OF KENTUCKY	153	153	138	138	15	15	144	144
33 UNIVERSITY OF ROCHESTER	153	172	149	169	4	3	150	170
34 LOUISIANA STATE UNIV	149	148	139	133	10	15	143	134
35 NORTHWESTERN UNIVERSITY	146	146	144	145	2	1	144	143
36 PRINCETON UNIVERSITY	142	138	136	133	6	5	138	135
37 UNIV OF MASS AT AMHERST	137	105	134	101	3	4	136	105
38 YALE UNIVERSITY	137	132	133	128	4	4	136	129
39 COLUMBIA UNIV HAIN DIV	133	137	120	128	13	9	124	131
40 UNIV OF CAL SANTA CRUZ 1/	130	71	112	56	18	15	122	66
TOTAL, 1ST 40 INSTS.	9,238	8,689	7,920	7,672	1,318	1,017	8,552	8,120
41 UNIVERSITY OF VIRGINIA	124	117	120	115	4	2	121	114
42 UNIV OF P R-RIO PIEDRAS	122	120	63	82	59	38	92	90
43 UNIVERSITY OF NOTRE DAME	120	117	118	112	2	5	119	115
44 ARIZONA STATE UNIVERSITY	119	67	114	66	5	1	116	66
45 U TENNESSEE KNOXVILLE	117	111	96	98	21	13	102	102
46 SYRACUSE UNIVERSITY	111	64	110	64	1	0	104	62
47 UNIV OF CAL IRVINE 1/	108	92	83	83	25	9	100	87
48 UNIVERSITY OF IOWA	107	100	103	95	4	5	104	97
49 TEXAS A & M UNIVERSITY	105	103	105	103	0	0	105	103
50 UNIV OF SOUTH CAROLINA	105	98	97	93	8	5	97	92
TOTAL, 1ST 50 INSTS.	10,376	9,678	8,929	8,583	1,447	1,095	9,614	9,050

SEE FOOTNOTES AT END OF TABLE.

TABLE B-54. -- PHYSICAL SCIENTISTS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1983 AND JANUARY 1984

- CONTINUED INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1984	1983	1984	1983	1984	1983	1984	1983
51 MAYNE STATE UNIVERSITY	104	104	79	79	25	25	87	87
52 UNIV OF PENNSYLVANIA	104	244	87	91	17	153	93	117
53 UNIV OF ILL CHICAGO 2/	104	95	96	89	8	6	99	91
54 OREGON STATE UNIVERSITY	102	84	98	77	4	7	99	78
55 UNIV OF HAWAII-MANOA	102	96	94	89	8	7	99	92
56 N C STATE UNIV AT RALEIGH	102	103	97	92	5	11	99	99
57 UNIVERSITY OF FLORIDA	101	98	98	97	3	1	99	97
58 UNIV OF SOUTHERN CAL	99	98	86	87	13	11	90	91
59 UNIVERSITY OF OKLAHOMA	99	96	95	93	4	3	96	96
60 UNIVERSITY OF DAYTON	98	96	88	84	10	12	25	20
TOTAL, 1ST 60 INSTS.	11,991	10,752	9,847	9,421	1,544	1,331	10,504	9,880
61 BOSTON UNIVERSITY	98	95	76	77	22	18	82	82
62 IOWA ST U OF SCI & TECH	98	85	94	82	4	3	95	82
63 NEW MEXICO STATE UNIV	95	101	86	94	9	7	90	97
64 UNIVERSITY OF NEW MEXICO	95	87	98	91	37	36	76	68
65 UNIV OF NC AT CHAPEL HILL	94	82	87	78	7	4	90	80
66 EMORY UNIVERSITY	93	91	83	82	10	9	89	87
67 SUNY AT BUFFALO	93	91	86	84	7	7	91	90
68 UNIVERSITY OF DELAWARE	91	99	85	95	6	6	87	97
69 RICE UNIVERSITY	90	85	79	78	11	7	84	82
70 WASHINGTON UNIVERSITY	88	77	83	72	5	5	81	72
TOTAL, 1ST 70 INSTS.	12,326	11,645	10,664	10,214	1,662	1,431	11,375	10,720
71 NEW YORK UNIVERSITY	88	81	76	72	12	9	78	73
72 FLORIDA STATE UNIVERSITY	84	85	81	85	3	0	82	85
73 DUKE UNIVERSITY	84	70	77	47	7	23	80	64
74 CUNY CITY COLLEGE	83	81	81	79	2	2	81	79
75 UNIVERSITY OF OREGON MAIN	82	77	51	50	31	27	68	63
76 CARNEGIE-MELLON UNIV	80	155	73	148	7	7	73	150
77 U OF HOUSTON UNIV PARK	80	88	73	65	7	23	76	71
78 RENSSELAER POLYTECH INST	79	79	75	74	4	5	76	75
79 UNIVERSITY OF GEORGIA	78	81	74	77	4	4	76	79
80 VA POLYTECH INST & ST U	78	82	77	82	1	0	78	82
TOTAL, 1ST 80 INSTS.	13,142	12,524	11,402	10,993	1,740	1,531	12,147	11,545
81 UNIV OF CAL DAVIS 1/	78	84	61	64	17	20	71	75
82 CLEMSON UNIVERSITY	77	70	77	70	0	0	77	70
83 SAN DIEGO STATE UNIV	76	83	55	62	21	21	64	71
84 CASE WESTERN RESERVE UNIV	76	81	76	80	0	1	76	80
85 DREXEL UNIVERSITY	75	63	68	57	7	6	72	61
86 UNIVERSITY OF CONNECTICUT	73	72	60	61	13	11	69	65
87 BRANDEIS UNIVERSITY	72	74	72	74	0	0	72	74
88 ALBURN UNIVERSITY	70	79	62	71	8	8	65	74
89 BROWN UNIVERSITY	69	63	64	60	5	3	64	61
90 UNIV OF NEBRASKA-LINCOLN	69	70	68	69	1	1	69	70
TOTAL, 1ST 90 INSTS.	13,877	13,263	12,065	11,461	1,812	1,602	12,850	12,248
91 UNIVERSITY OF CINCINNATI	69	68	66	62	3	6	67	64
92 UNIVERSITY OF KANSAS	69	81	69	81	0	0	69	81
93 SUNY AT ALBANY	68	74	60	71	8	3	64	71
94 UNIV OF MISSOURI ROLLA	67	57	62	51	5	6	65	53
95 OREGON GRADUATE CENTER	67	65	67	65	0	0	67	65
96 OHIO UNIVERSITY	66	63	54	57	12	6	59	60
97 MONTANA STATE UNIVERSITY	65	62	49	47	16	15	55	52
98 GEORGE WASHINGTON UNIV	64	61	36	35	28	26	47	46
99 TEMPLE UNIVERSITY	64	44	50	44	14	0	55	44
100 FAIRLEIGH DICKINSON UNIV	64	64	35	35	29	29	44	44
TOTAL, 1ST 100 INSTS.	14,540	13,902	12,613	12,209	1,927	1,693	13,447	12,831
TOTAL, ALL OTHER INSTS.	5,587	5,596	4,908	4,907	679	689	5,179	5,201

1/ THE UNIVERSITY OF CALIFORNIA SYSTEM REPORTED SIGNIFICANT CHANGES IN JANUARY 1984 COMPARED TO PREVIOUS YEARS, AS THE RESULT OF RECLASSIFYING SCIENCE AND ENGINEERING (S/E) AWARDS AND RESTRUCTURING SOME S/E DEPARTMENTS.

2/ DATA REPRESENT COMBINED TOTALS FOR THE UNIVERSITY OF ILLINOIS CHICAGO CIRCLE AND THE UNIVERSITY OF ILLINOIS MEDICAL CENTER.

NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED.

DASHES INDICATE THAT DATA ARE NOT AVAILABLE; DASHES FOLLOWED BY "C" INDICATE CONFIDENTIAL DATA.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-95. -- ENVIRONMENTAL SCIENTISTS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1983 AND JANUARY 1984

INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1984	1983	1984	1983	1984	1983	1984	1983
TOTAL, ALL INSTITUTIONS	7,447	7,022	6,472	6,309	975	713	6,857	6,625
1 UNIV OF CAL SAN DIEGO 1/	386	284	330	251	56	33	351	266
2 UNIV OF WIS-MADISON	220	235	189	201	31	34	208	219
3 COLUMBIA UNIV MAIN DIV	193	205	189	200	4	5	190	202
4 MASS INST OF TECHNOLOGY	176	107	154	96	22	11	165	102
5 UNIV OF TEXAS AT AUSTIN	173	190	170	184	3	6	171	187
6 UNIVERSITY OF WASHINGTON	171	167	148	145	23	22	158	158
7 OREGON STATE UNIVERSITY	162	164	140	155	22	11	152	159
8 INDIANA UNIVERSITY	153	71	110	95	43	14	120	61
9 UNIV OF ILL URBANA	146	144	117	116	29	28	133	130
10 LOUISIANA STATE UNIV	139	112	129	103	10	9	132	110
TOTAL, 1ST 10 INSTS.	1,919	1,461	1,676	1,506	243	175	1,781	1,595
11 UNIVERSITY OF COLORADO	121	82	46	79	75	3	95	80
12 UNIV OF HAWAII-MANOA	112	108	106	101	6	7	109	104
13 UNIVERSITY OF ARIZONA	111	113	102	104	9	9	105	106
14 UNIVERSITY OF MIAMI	107I	105	103I	101	4I	4	104I	103
15 U OF MD CENTER FOR EES	102	103	80	81	22	22	89	88
16 UNIV OF CAL LOS ANGELES 1/	99	105	84	84	15	21	88	96
17 COLLEGE OF WILLIAM & MARY	97	109	97	109	0	0	97	109
18 TEXAS A & M UNIVERSITY	94	84	94	84	0	0	94	84
19 PENNSYLVANIA STATE UNIV	90	90	88	89	2	1	88	87
20 SUNY AT ALBANY	86	61	71	52	15	9	58	56
TOTAL, 1ST 20 INSTS.	2,938	2,641	2,547	2,390	391	251	2,712	2,511
21 UNIVERSITY OF DELAWARE	76	76	76	76	0	0	76	76
22 UNIV OF CAL SANTA BARBARA 1/	74	64	58	47	16	17	66	54
23 COLORADO STATE UNIVERSITY	73	67	69	65	4	2	68	65
24 UNIV OF ALASKA FAIRBANKS	72I	70	68I	66	4I	4	69I	68
25 WOODS HOLE OCEANOGRAPHIC INST	70	70	63	64	7	6	67	72
26 US NAVAL POSTGRAD SCHOOL	69	62	64	61	5	1	67I	61
27 UNIVERSITY OF MICHIGAN	68	58	56	53	12	5	60	55
28 UNIVERSITY OF KANSAS	66	67	66	67	0	0	66	67I
29 RUTGERS THE ST UNIV OF NJ	64	65	61	63	3	2	62	63
30 FLORIDA STATE UNIVERSITY	63	67	59	66	4	1	61	67
TOTAL, 1ST 30 INSTS.	3,633	3,307	3,187	3,018	444	289	3,377	3,199
31 CALIFORNIA INST OF TECH	61	61	55	55	6	6	59	58
32 ARIZONA STATE UNIVERSITY	58	20	45	20	13	0	50	19
33 UNIVERSITY OF KENTUCKY	57	57	54	54	3	3	54	54
34 SUNY AT STONY BROOK	57	56	57	56	0	0	57	56
35 UNIVERSITY OF UTAH	55	62	30	54	25	8	42	54
36 STANFORD UNIVERSITY	55	49	36	36	19	13	37	35
37 HARVARD UNIVERSITY	54	51	49	50	5	1	49	50
38 UNIV OF SOUTH CAROLINA	54	39	48	36	6	3	47	39
39 UNIVERSITY OF GEORGIA	53	55	49	53	4	2	51	54
40 UNIVERSITY OF OKLAHOMA	52	44	51	44	1	0	44	44
TOTAL, 1ST 40 INSTS.	4,189	3,801	3,661	3,476	528	325	3,871	3,624
41 UNIV OF CAL SANTA CRUZ 1/	52	47	37	33	15	14	41	38
42 PRINCETON UNIVERSITY	52	45	47	41	5	4	50	43
43 OHIO STATE UNIVERSITY	50	48	42	36	8	12	48	41
44 UNIV OF SOUTHERN CAL	48	15I	30	15I	18	0I	40	15I
45 UNIV OF MD COLLEGE PARK	45	33	31	30	14	3	44	37
46 UNIVERSITY OF MINNESOTA	44	30	40	30	4	0	38	30
47 UNIVERSITY OF NEW MEXICO	43	41	26	25	17	16	34	31
48 UNIVERSITY OF VIRGINIA	43	43	39	38	4	5	43I	43I
49 UNIV OF RHODE ISLAND	42	41	42	41	0	0	42	41
50 YALE UNIVERSITY	42	24	39	22	3	2	40	22
TOTAL, 1ST 50 INSTS.	4,650	4,168	4,034	3,787	616	381	4,291	3,967

SEE FOOTNOTES AT END OF TABLE.

TABLE B-55. -- ENVIRONMENTAL SCIENTISTS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1983 AND JANUARY 1984

- CONTINUED INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1984	1983	1984	1983	1984	1983	1984	1983
51 UNIVERSITY OF CHICAGO	41	45	41	45	0	0	41	45
52 UNIVERSITY OF WYOMING	40	44	38	43	2	3	40	44
53 JOHNS HOPKINS UNIVERSITY	40	38	35	33	5	5	37	35
54 UNIV OF WIS-MILWAUKEE	39	45	12	38	27	27	27	44
55 MICHIGAN STATE UNIVERSITY	39I	38	39I	38	0I	0	39I	38
56 UTAH STATE UNIVERSITY	39	39	35	35	4	4	38	39
57 DUKE UNIVERSITY	39	18	39	18	0	0	39	18
58 N MEX INST MINING & TECH	39	40	39	40	0	0	39	40
59 UNIVERSITY OF CONNECTICUT	38	35	33	31	5	4	34	31
60 UNIV OF SOUTH FLORIDA	38	31I	34	31I	4	0I	37	31I
TOTAL, 1ST 60 INSTS.	5,042	4,563	4,379	4,139	663	424	4,664	4,335
61 FLORIDA INST OF TECH	37	29	31	27	6	2	32	27
62 CORNELL UNIVERSITY	36	34	33	32	3	2	36I	34I
63 N C STATE UNIV AT RALEIGH	36	35	35	34	1	1	35	34
64 UNIV OF MAINE ORONO	35	35	31	31	4	4	32	32
65 UNIV OF NEVADA - RENO	35	36I	16	24I	19	12I	21	28I
66 VA POLYTECH INST & ST U	35	35	34	34	1	1	35	35
67 GEORGIA INSTITUTE OF TECH	35	31	34	30	1	1	34	30
68 DESERT RESEARCH INSTITUTE	35	32	34	31	1	1	34	31
69 UNIVERSITY OF N DAKOTA	34	29	24	25	10	4	26	25
70 NORTH DAKOTA STATE UNIV	33	33	33	33	0	0	33	33
TOTAL, 1ST 70 INSTS.	5,393	4,892	4,684	4,440	709	452	4,985	4,648
71 UNIV OF MISSOURI COLUMBIA	33	27	29	25	4	2	30	26
72 UNIV OF CAL BERKELEY 1/	31	108	23	86	8	22	26	94
73 UNIV OF TEXAS AT DALLAS	31	33	28	31	3	2	30	32
74 UNIV OF NEBRASKA-LINCOLN	31	31	30	30	1	1	31	31
75 UNIV OF MASS AT AMHERST	30	33	28	32	2	1	29	32
76 UNIV OF NEW HAMPSHIRE	29	34	28	32	1	2	29	33
77 PURDUE UNIVERSITY	29	29	29	26	0	3	29	27
78 U OF HOUSTON UNIV PARK	28	26	21	20	7	6	22	21
79 OLD DOMINION UNIVERSITY	27	32	27	29	0	3	27	30
80 NORTHERN ILLINOIS UNIV	27	29	27	29	0	0	27	29
TOTAL, 1ST 80 INSTS.	5,689	5,274	4,954	4,780	735	494	5,267	5,004
81 SAN DIEGO STATE UNIV	26	38	24	37	2	1	25	37
82 BOSTON COLLEGE	26	34	26	30	0	4	26	32
83 UNIV OF P R-MAYAGUEZ	25	35	25	35	0	0	0	35
84 UNIVERSITY OF AKRON	25	23	21	19	4	4	22	20
85 UNIV OF CAL RIVERSIDE 1/	25	26	20	21	5	5	22	23
86 LONG ISLAND UNIVERSITY	24	23I	20	16I	4	7I	24I	20I
87 UNIVERSITY OF IDAHO	24	25	22	22	2	3	23	23
88 OHIO UNIVERSITY	24	20	21	18	3	2	22	19
89 UNIV OF NC AT CHAPEL HILL	24	21	24	21	0	0	24	21
90 SUNY AT BINGHAMTON	23	19	21	18	2	1	22	18
TOTAL, 1ST 90 INSTS.	5,935	5,538	5,178	5,017	757	521	5,478	5,255
91 WASHINGTON UNIVERSITY	22	0	20	0	2	0	22	0
92 BROWN UNIVERSITY	22	24	21	24	1	0	21	24
93 GEORGE WASHINGTON UNIV	22	18	6	6	16	12	11	10
94 NORTHEASTERN UNIVERSITY	22I	22I	11I	11I	11I	11I	15I	15I
95 UNIVERSITY OF FLORIDA	22	22	21	21	1	1	21	21
96 WRIGHT STATE UNIVERSITY	21	24	17	17	4	7	16	17
97 BRIGHAM YOUNG UNIVERSITY	21	22	21	21	0	1	21	21
98 NORTHWESTERN UNIVERSITY	21	18	18	16	3	2	20	17
99 UNIVERSITY OF MONTANA	21	21	20	20	1	1	20	20
100 CLUNY MOUNTN COLLEGE	20	12	9	4	11	8	10	8
TOTAL, 1ST 100 INSTS.	6,149	5,721	5,342	5,157	807	564	5,659	5,412
TOTAL, ALL OTHER INSTS.	1,298	1,201	1,130	1,152	168	149	1,197	1,212

1/ THE UNIVERSITY OF CALIFORNIA SYSTEM REPORTED SIGNIFICANT CHANGES IN JANUARY 1984 COMPARED TO PREVIOUS YEARS, AS THE RESULT OF RECLASSIFYING SCIENCE AND ENGINEERING (S/E) AWARDS AND RESTRUCTURING SOME S/E DEPARTMENTS.

NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED.

DASHES INDICATE THAT DATA ARE NOT AVAILABLE; DASHES FOLLOWED BY "C" INDICATE CONFIDENTIAL DATA.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-56. -- MATHEMATICAL/COMPUTER SCIENTISTS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1983 AND JANUARY 1984

INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1984	1983	1984	1983	1984	1983	1984	1983
TOTAL, ALL INSTITUTIONS	19,294	18,425	15,110	14,620	4,184	3,805	16,671	16,044
1 PURDUE UNIVERSITY	328	321	226	223	102	98	272	267
2 PENNSYLVANIA STATE UNIV	287	275	201	188	86	87	227	224
3 NORTHEASTERN UNIVERSITY	284I	281I	61I	60I	223I	221I	145I	144I
4 UNIVERSITY OF PITTSBURGH	272	196E	201	122E	71	74E	227	159E
5 UNIV OF TEXAS AT AUSTIN	245	225	232	212	13	13	237	217
6 UNIV OF ILL URBANA	241	247	225	232	16	15	234	238
7 JOHNS HOPKINS UNIVERSITY	234	213	228	213	6	0	231	213
8 UNIVERSITY OF KENTUCKY	228	228	156	156	72	72	181	181
9 UNIV OF WIS-MADISON	227	233	198	199	29	34	217	217
10 RUTGERS THE ST UNIV OF NJ	225	222	217	212	8	10	220	215
TOTAL, 1ST 10 INSTS.	2,571	2,441	1,945	1,817	626	624	2,203	2,075
11 OHIO STATE UNIVERSITY	223	152	159	132	64	20	185	139
12 NEW MEXICO STATE UNIV	216	168	192	160	24	8	201	163
13 UNIV OF MD COLLEGE PARK	206	187	173	153	33	34	197	172
14 UNIV OF SOUTH CAROLINA	206	195	174	170	32	25	184	175
15 INDIANA UNIVERSITY	200	302	114	172	86	130	199	210
16 NEW YORK UNIVERSITY	190	191	150	155	40	36	166	160
17 MASS INST OF TECHNOLOGY	185	188	161	165	24	23	173	177
18 UNIVERSITY OF MINNESOTA	180	188	163	163	17	25	172	177
19 PAEE UNIVERSITY	175	160	39	35	136	125	124	114
20 N C STATE UNIV AT RALEIGH	174	176	144	152	30	24	153	158
TOTAL, 1ST 20 INSTS.	4,526	4,348	3,414	3,274	1,112	1,074	3,899	3,722
21 LOUISIANA STATE UNIV	169	173	146	156	23	17	154	163
22 IOWA ST U OF SCI & TECH	164	160	154	150	10	10	159	156
23 BOSTON UNIVERSITY	157	145	38	49	119	96	78	82
24 TEXAS A & M UNIVERSITY	154	137	154	137	0	0	154	137
25 GEORGIA INSTITUTE OF TECH	150	141	134	118	16	23	140	123
26 ARIZONA STATE UNIVERSITY	139	109	128	109	11	0	133	108
27 MICHIGAN STATE UNIVERSITY	139I	135	133I	129	61	6	135I	132
28 GEORGE WASHINGTON UNIV	135	132	69	61	66	71	89	84
29 TEMPLE UNIVERSITY	134	112	93	92	41	20	109	107I
30 U TENNESSEE KNOXVILLE	133	122	126	118	7	4	129	119
TOTAL, 1ST 30 INSTS.	6,000	5,714	4,589	4,393	1,411	1,321	5,181	4,936
31 FLORIDA STATE UNIVERSITY	130	127	123	121	7	6	126	124
32 ALBURN UNIVERSITY	128	117	101	101	27	16	112	106
33 STANFORD UNIVERSITY	126	136	93	92	33	44	88	83
34 CARNEGIE-MELLON UNIV	125	97I	119	88I	6	9I	120	92I
35 UNIVERSITY OF UTAH	122	96	89	83	33	13	104	86
36 MIAMI UNIVERSITY (OHIO)	120	112	96	84	24	28	103	94
37 UNIVERSITY OF MICHIGAN	120	104	112	102	8	2	115	103
38 UNIVERSITY OF WASHINGTON	116	95	98	77	18	18	105	84
39 MAYNE STATE UNIVERSITY	116	116	82	82	34	34	93	93
40 AMERICAN UNIVERSITY	116	92	39	36	77	56	62	62
TOTAL, 1ST 40 INSTS.	7,219	6,806	5,541	5,259	1,678	1,547	6,212	5,967
41 UNIVERSITY OF ARIZONA	116	120	109	116	7	4	112	117
42 UNIVERSITY OF TOLEDO	115	70	70	51	45	19	98	61
43 NORTHWESTERN UNIVERSITY	112	112	104	105	8	7	104	110
44 UNIV OF CAL BERKELEY 1/	112	110	84	84	28	26	95	93
45 UNIVERSITY OF CINCINNATI	111	82	93	68	18	14	100	73
46 GEORGIA STATE UNIVERSITY	111	112	89	92	22	20	103	104
47 SUNY AT BINGHAMTON	110	91	76	74	34	15	84	79
48 UNIV OF MASS AT AMHERST	109	75	103	71	6	4	106	72
49 COLORADO STATE UNIVERSITY	109	91	96	85	13	6	92	85
50 UNIVERSITY OF IOWA	108	98	100	94	8	4	104	95
TOTAL, 1ST 50 INSTS.	8,332	7,767	6,465	6,101	1,867	1,666	7,213	6,758

SEE FOOTNOTES AT END OF TABLE.

TABLE 8-54. — MATHEMATICAL/COMPUTER SCIENTISTS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1983 AND JANUARY 1984

- CONTINUED INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1984	1983	1984	1983	1984	1983	1984	1983
51 UNIV OF SOUTHWESTERN LA	108	80	83	74	25	6	90	75
52 SAN DIEGO STATE UNIV	108	99	77	75	31	24	87	77
53 UNIVERSITY OF NEW MEXICO	107	101	84	73	23	28	98	92
54 VA POLYTECH INST & ST U	105	114	97	112	8	2	101	113
55 NEW YORK INST TECHNOLOGY	103	107I	46	44I	57	63I	65	66I
56 UNIVERSITY OF GEORGIA	103	96	89	87	14	9	95	90
57 SUNY AT STONY BROOK	101	90	92	83	9	7	95	86
58 UNIVERSITY OF CONNECTICUT	101	70	63	52	38	18	78	55
59 UNIV OF PENNSYLVANIA	100	136	85	83	15	53	88	89
60 OREGON STATE UNIVERSITY	99	96	76	73	23	23	84	80
TOTAL, 1ST 60 INSTS.	9,367	8,756	7,257	6,857	2,110	1,899	8,097	7,584
61 UNIV OF ILL CHICAGO 2/	97	97	89	88	8	9	93	91
62 DE PAUL UNIVERSITY	97	79	35	30	62	49	60I	50
63 LONG ISLAND UNIVERSITY	95	71I	47	45I	48	26I	75I	56I
64 UNIV OF CAL SAN DIEGO 1/	95	89	73	74	22	15	87	84
65 UNIVERSITY OF CHICAGO	94	93	64	59	30	34	67	51
66 HOUSTON UNIVERSITY	93	77	52	48	41	29	68	59
67 N J INST OF TECHNOLOGY	93	83	49	42	44	41	60	62
68 WRIGHT STATE UNIVERSITY	93	91	55	57	38	34	68	66
69 UNIVERSITY OF VIRGINIA	92	89	85	86	7	3	88	86
70 WASHINGTON UNIVERSITY	92	91	91	86	1	5	67	88E
TOTAL, 1ST 70 INSTS.	10,308	9,616	7,897	7,472	2,411	2,144	8,832	8,281
71 CLEMSON UNIVERSITY	91I	83I	84I	76I	71	71	86I	78I
72 SUNY AT BUFFALO	90I	87	90I	87	0I	0	90I	87
73 FLORIDA INST OF TECH	86	86	26	25	60	61	48	48
74 SOUTHERN ILL U-CARBONDALE	85	88	82	83	3	5	82	85
75 KENT STATE UNIVERSITY	84	81	52	54	32	27	68	65
76 SYRACUSE UNIVERSITY	84	171	77	132	7	39	59	165
77 THE UNIVERSITY OF ALABAMA	83	83	76	76	7	7	81	81
78 ILLINOIS STATE UNIVERSITY	83	74	65	60	18	14	72	66
79 UNIVERSITY OF COLORADO	83	89	72	86	11	3	75	87
80 UNIV OF CENTRAL FLORIDA	82	64	64	45	18	19	68	51
TOTAL, 1ST 80 INSTS.	11,159	10,522	8,585	8,196	2,574	2,326	9,567	9,098
81 CUNY CITY COLLEGE	82I	79I	68I	66I	14I	13I	75I	72I
82 U OF HOUSTON UNIV PARK	81	74	68	62	13	12	73	66
83 OKLAHOMA STATE UNIVERSITY	80	62	70	55	10	7	74	58
84 UNIV OF P R-RIO PIEDRAS	80	98	62	77	18	21	71	83
85 UNIVERSITY OF FLORIDA	79	79	73	75	6	4	76	77
86 CORNELL UNIVERSITY	78	85	68	75	10	10	76I	83I
87 UNIVERSITY OF NEW ORLEANS	77	73	54	58	23	15	63	63
88 NORTHERN ILLINOIS UNIV	77	75	72	70	5	5	74	72
89 BRIGHAM YOUNG UNIVERSITY	77	140	71	134	6	6	72	136
90 UNIV OF CAL LOS ANGELES 1/	76	71	66	66	10	5	70	68
TOTAL, 1ST 90 INSTS.	11,946	11,358	9,257	8,934	2,689	2,424	10,294	9,879
91 EAST CAROLINA UNIVERSITY	76	58	68	44	8	14	76	57
92 FAIRLEIGH DICKINSON UNIV	76	76	28	28	48	48	46	46
93 MICHIGAN TECH UNIVERSITY	75	70	73	65	2	5	74	67
94 RENSSELAER POLYTECH INST	75	69	66	65	9	4	68	66
95 HARVARD UNIVERSITY	74	63	57	56	17	7	62	60
96 UNIV OF TEX AT ARLINGTON	74	83	54	58	20	25	64	64
97 UNIVERSITY OF AKRON	74	67	32	25	42	42	50	39
98 MONTANA STATE UNIVERSITY	73I	72	53I	52	20I	20	62I	61
99 ST JOHN'S UNIVERSITY (NY)	72	30I	46	23I	26	71	54	25I
100 VILLANOVA UNIVERSITY	72	69	43	37	29	32	53	46
TOTAL, 1ST 100 INSTS.	12,687	12,015	9,777	9,387	2,910	2,628	10,908	10,415
TOTAL, ALL OTHER INSTS.	6,607	6,410	5,333	5,233	1,274	1,177	5,762	5,629

1/ THE UNIVERSITY OF CALIFORNIA SYSTEM REPORTED SIGNIFICANT CHANGES IN JANUARY 1984 COMPARED TO PREVIOUS YEARS, AS THE RESULT OF RECLASSIFYING SCIENCE AND ENGINEERING (S/E) AWARDS AND RESTRUCTURING SOME S/E DEPARTMENTS.

2/ DATA REPRESENT COMBINED TOTALS FOR THE UNIVERSITY OF ILLINOIS CHICAGO CIRCLE AND THE UNIVERSITY OF ILLINOIS MEDICAL CENTER.

NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED. DASHES INDICATE THAT DATA ARE NOT AVAILABLE; DASHES FOLLOWED BY "C" INDICATE CONFIDENTIAL DATA.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-57. -- LIFE SCIENTISTS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1983 AND JANUARY 1984

INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1984	1983	1984	1983	1984	1983	1984	1983
TOTAL, ALL INSTITUTIONS	130,839	126,857	103,844	101,460	26,995	25,397	113,338	110,337
1 HARVARD UNIVERSITY	6,415	6,067	4,129	3,895	2,286	2,172	5,586	5,295
2 OHIO STATE UNIVERSITY	3,251	3,012	1,490	1,467	1,761	1,545	1,644	1,775
3 LOUISIANA STATE UNIV	2,456	2,354	2,000	1,897	456	457	2,090	1,981
4 UNIV OF CAL SAN FRANCISCO 1/	2,276	2,169	1,450	1,449	826	720	1,863	1,799
5 UNIV OF WIS-MADISON	2,183	2,105	1,760	1,737	423	368	2,006	1,962
6 UNIVERSITY OF MINNESOTA	2,067	2,041	1,732	1,717	335	324	1,669	1,625
7 UNIV OF CAL LOS ANGELES 1/	1,932	2,015	1,350	1,448	582	567	1,623	1,721
8 UNIVERSITY OF FLORIDA	1,815	1,788	1,675	1,658	140	130	1,727	1,702
9 UNIV OF CAL DAVIS 1/	1,789	1,597	1,359	1,231	430	366	1,573	1,430
10 HOWARD UNIVERSITY	1,674	1,680	807	790	867	890	1,001	1,018
TOTAL, 1ST 10 INSTS.	25,858	24,828	17,752	17,289	8,106	7,539	20,782	20,310
11 UNIVERSITY OF MICHIGAN	1,671	1,382	1,245	1,042	426	340	1,410	1,175
12 JOHNS HOPKINS UNIVERSITY	1,635	1,606	1,515	1,520	120	86	1,575	1,543
13 CORNELL UNIVERSITY	1,525	1,480	1,430	1,388	95	92	1,478	1,429I
14 COLUMBIA UNIV MAIN DIV	1,511	1,524	1,224	1,210	287	314	1,320	1,315
15 UNIVERSITY OF IOWA	1,501	1,458	1,228	1,182	273	276	1,337	1,313
16 YALE UNIVERSITY	1,446	1,458	1,341	1,329	125	129	1,413	1,396
17 UNIVERSITY OF WASHINGTON	1,375	1,388	997	993	378	395	1,194	1,188I
18 WASHINGTON UNIVERSITY	1,374	1,343	1,275	1,251	99	92	1,316	1,285
19 UNIVERSITY OF PITTSBURGH	1,368	1,293E	1,169	1,113E	199	180E	1,235	1,203E
20 INDIANA UNIVERSITY	1,347	1,257	923	936	424	321	1,008	1,036
TOTAL, 1ST 20 INSTS.	40,631	39,017	30,099	29,253	10,532	9,764	34,071	33,197
21 UNIV OF MD BALT PROF SCH	1,299	1,181	815	748	484	433	976	938
22 U TEX HLTH SCI CTR DALLAS	1,294	1,175	926	889	368	286	1,070	981
23 UNIV OF PENNSYLVANIA	1,289	1,331	1,041	1,032	248	299	1,152	1,135
24 NEW YORK UNIVERSITY	1,287	1,343	878	903	409	440	952	1,052
25 UNIVERSITY OF KENTUCKY	1,253	1,253	1,089	1,089	164	164	1,137	1,137
26 DUKE UNIVERSITY	1,220	1,203	1,160	1,203	60	0	1,190	1,203
27 CASE WESTERN RESERVE UNIV	1,209	1,325	1,035	1,070	174	255	1,074	1,157
28 CUNY MT SINAI SCH OF MED	1,201	1,396I	945	1,110I	256	286I	1,027	1,194I
29 UNIV OF SOUTHERN CAL	1,158	1,162I	876	892I	282	270I	966	970I
30 TEXAS A & M UNIVERSITY	1,122	1,075	1,122	1,075	0	0	1,122	1,075
TOTAL, 1ST 30 INSTS.	52,963	51,461	39,986	39,264	12,977	12,197	44,740	44,041
31 U TEX HLTH SCI CTR S ANTO	1,090	1,092	882	858	208	234	963	951
32 UNIV ALABAMA BIRMINGHAM	1,083	1,058	954	938	129	120	994	967
33 UNIV OF NC AT CHAPEL HILL	1,081	833	956	816	125	17	1,018	824
34 UNIVERSITY OF KANSAS	1,000	662	813	614	187	48	894	624I
35 BAYLOR COL OF MEDICINE	990	918	860	792	130	126	816	769
36 UNIV OF MED & DENT OF N J	964I	931I	732I	713I	232I	218I	827I	799I
37 UNIVERSITY OF CINCINNATI	962	845	843	740	119	105	878	771
38 N C STATE UNIV AT RALEIGH	959	950	939	939	20	11	946	943
39 UNIV OF ILL CHICAGO 2/	949	941	684	673	265	268	795	783
40 U TEX HLTH SCI CTR HOUSTN	932I	1,058	920I	899	121	159	920I	964
TOTAL, 1ST 40 INSTS.	62,973	60,749	48,569	47,246	14,404	13,503	53,795	52,440
41 YESHIVA UNIVERSITY	930	878	681	690	249	188	728	773
42 MICHIGAN STATE UNIVERSITY	921I	896	839I	818	82I	78	869I	846
43 UNIV OF MISSOURI COLUMBIA	916	899	820	796	96	103	848	827
44 UNIVERSITY OF MIAMI	900I	883E	848I	832E	52I	51E	871I	855E
45 UNIV OF ILL URBANA	893	858	776	729	117	129	842	786
46 UNIVERSITY OF UTAH	871	1,274	695	1,169	176	105	761	1,198
47 UNIV OF CAL BERKELEY 1/	870	820	609	557	261	263	725	672
48 UNIV OF CAL SAN DIEGO 1/	868	922	627	722	241	200	754	832
49 NEW YORK MEDICAL COLLEGE	842	844	621	630	221	234	722	739
50 MED UNIV OF SO CAROLINA	841I	817	737I	719	104I	98	737I	548
TOTAL, 1ST 50 INSTS.	71,825	69,860	55,822	54,908	16,003	14,952	61,656	60,520

SEE FOOTNOTES AT END OF TABLE.

TABLE 8-57. — LIFE SCIENTISTS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1983 AND JANUARY 1984

- CONTINUED INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1984	1983	1984	1983	1984	1983	1984	1983
51 SUNY DOWNSTATE MED CTR	836I	811I	687I	670I	149I	141I	749I	727I
52 U OF ARKANSAS MED SCI CAM	833	808	765	729	68	79	786	756
53 UNIVERSITY OF CONNECTICUT	816	833	687	697	129	136	728	747
54 PENNSYLVANIA STATE UNIV	812	773	735	713	77	60	762	750
55 UNIVERSITY OF ROCHESTER	808	826	786	799	22	27	794	810
56 UNIVERSITY OF CHICAGO	804	804	771	771	33	33	771	771
57 OREGON HLTH SCIENCES UNIV	801I	772I	521I	508I	280I	264I	627I	604I
58 WAYNE STATE UNIVERSITY	792	792	654	654	138	138	709	709
59 NORTHWESTERN UNIVERSITY	789	807	639	624	150	183	681	695
60 PURDUE UNIVERSITY	788	781	690	701	98	80	723	727
TOTAL, 1ST 60 INSTs.	79,904	77,867	62,757	61,774	17,147	16,093	68,989	67,818
61 U TEXAS SYSTEM CANCER CTR	768	772	720	717	48	55	743	746
62 GEORGETOWN UNIVERSITY	768	742	748	711	20	31	758	727
63 UNIVERSITY OF ARIZONA	761	749	635	637	126	112	684	684
64 SUNY AT BUFFALO	755I	726	456I	444	299I	282	549I	529
65 MASS INST OF TECHNOLOGY	751	465	650	409	101	54	700	437
66 VIRGINIA COMMONWELTH UNIV	746	735	648	659	78	76	699	691
67 TEMPLE UNIVERSITY	746	784	619	646	127	118	662	784I
68 UNIV OF HAWAII-MANOA	739	709	520	514	219	195	598	584
69 BOSTON UNIVERSITY	716	719	562	555	154	164	611	606
70 PHILA COL OSTEOPATHIC MED	710	705	109	108	601	597	189	167
TOTAL, 1ST 70 INSTs.	87,364	84,973	68,444	67,194	18,920	17,779	75,185	73,773
71 VANDERBILT UNIVERSITY	703	714	557	574	136	140	510	589
72 UNIV OF CAL IRVINE 1/	690	685	531	526	159	159	608	600
73 UNIVERSITY OF GEORGIA	684	684	644	642	20	22	674	672
74 KANS ST U - AG & APP SCI	683	704	612	606	71	98	641	658
75 UNIV TENN CTR HEALTH SCI	679	674	531	515	148	159	561	555
76 UNIVERSITY OF OKLAHOMA	677	770	574	622	103	148	642	706
77 SUNY AT STONY BROOK	675	616	584	538	91	78	619	568
78 U OF CAL SYS WIDE PRGMS 1/	662	647	636	613	26	34	648	627
79 UNIVERSITY OF LOUISVILLE	660	521	479	380	181	141	536	412
80 IOWA ST U OF SCI & TECH	642	644	582	576	60	68	621	621
TOTAL, 1ST 80 INSTs.	94,119	91,632	74,204	72,806	19,915	18,826	81,249	79,784
81 MEDICAL COL OF GEORGIA	640	473	499	370	141	103	556I	413
82 MEDICAL COLLEGE OF MIS	632	118I	455	106I	177	121	543	106I
83 TUFTS UNIVERSITY	621I	613I	201I	197I	420I	416I	332I	328I
84 GEORGE WASHINGTON UNIV	617	612	360	356	257	256	474	465
85 UNIVERSITY OF VIRGINIA	596	581	570	559	26	22	561	546
86 UNIVERSITY OF MISSISSIPPI	583	552	448	431	135	121	489I	0
87 OREGON STATE UNIVERSITY	574	583	504	512	70	71	536	542
88 UNIVERSITY OF NEW MEXICO	570	540	442	407	128	133	497	465
89 EMORY UNIVERSITY	555I	546I	464I	455I	91I	91I	483I	475I
90 CLEMSON UNIVERSITY	513I	465I	510I	462I	3I	3I	510I	462I
TOTAL, 1ST 90 INSTs.	100,020	96,715	78,657	76,661	21,363	20,054	86,237	83,591
91 UNIV OF P R-MED SCI CAMPUS	509I	493	416I	405	93I	88	417I	405
92 ALBURN UNIVERSITY	493	482	472	462	21	20	475	474
93 COLORADO STATE UNIVERSITY	492	489	468	470	24	19	472	470
94 ST LOUIS UNIVERSITY	488	457	407	371	31	86	436	400
95 THOMAS JEFFERSON UNIV	484	315	436	282	48	33	458	288
96 UNIV OF SOUTH FLORIDA	480	350I	291	234I	189	116I	391	268I
97 STANFORD UNIVERSITY	464	461	427	422	37	39	380	388
98 LOYOLA UNIV - CHICAGO	463	481	267	285	196E	196	333	351
99 UNIV OF CAL RIVERSIDE 1/	460	478	423	427	37	51	445	458
100 U TEX MED BRNCH GALVESTON	452	429	452	429	0	0	452	429
TOTAL, 1ST 100 INSTs.	104,805	101,150	82,716	80,448	22,089	20,702	90,499	87,523
TOTAL, ALL OTHER INSTs.	26,034	25,707	21,128	21,012	4,906	4,695	22,838	22,814

1/ THE UNIVERSITY OF CALIFORNIA SYSTEM REPORTED SIGNIFICANT CHANGES IN JANUARY 1984 COMPARED TO PREVIOUS YEARS, AS THE RESULT OF RECLASSIFYING SCIENCE AND ENGINEERING (S/E) AWARDS AND RESTRUCTURING SOME S/E DEPARTMENTS.

2/ DATA REPRESENT COMBINED TOTALS FOR THE UNIVERSITY OF ILLINOIS CHICAGO CIRCLE AND THE UNIVERSITY OF ILLINOIS MEDICAL CENTER.

NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED.

DASHES INDICATE THAT DATA ARE NOT AVAILABLE; DASHES FOLLOWED BY "C" INDICATE CONFIDENTIAL DATA.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-98. — PSYCHOLOGISTS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1983 AND JANUARY 1984

INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1984	1983	1984	1983	1984	1983	1984	1983
TOTAL, ALL INSTITUTIONS	10,866	10,486	8,566	8,291	2,300	2,195	9,465	9,027
1 FIELDING INSTITUTE	390	291	390	21	0	271	390	21
2 UNIV OF WIS-MADISON	200	197	169	164	31	31	186	183
3 UNIV OF ILL URBANA	164	158	143	133	21	25	154	138
4 UNIVERSITY OF KANSAS	161	168	161	168	0	0	161	168
5 INDIANA UNIVERSITY	155	175	112	121	43	54	123	134
6 NEW YORK UNIVERSITY	151	147	79	70	72	77	95	86
7 UNIV OF TEXAS AT AUSTIN	141	138	107	109	34	29	126	125
8 UNIVERSITY OF CONNECTICUT	135	136	103	118	32	18	108	118
9 UNIVERSITY OF MICHIGAN	130	136	103	105	27	31	114	119
10 RUTGERS THE ST UNIV OF NJ	130	132	128	128	2	4	129	129
TOTAL, 1ST 10 INSTS.	1,757	1,416	1,495	1,120	262	296	1,588	1,204
11 UNIVERSITY OF MINNESOTA	127	119	120	109	7	10	122	118
12 CORNELL UNIVERSITY	125	121	116	110	9	11	117	113
13 UNIVERSITY OF KENTUCKY	116	114	76	76	40	40	85	85
14 MICHIGAN STATE UNIVERSITY	116	113	112	109	4	4	113	111
15 ARIZONA STATE UNIVERSITY	115	34	84	34	31	0	93	33
16 MASS INST OF TECHNOLOGY	112	78	79	55	33	23	95	67
17 PURDUE UNIVERSITY	108	111	88	91	20	20	96	98
18 SOUTHERN ILL U-CARBONDALE	103	104	95	92	8	12	99	97
19 TEMPLE UNIVERSITY	102	105	75	97	27	8	88	97
20 NEW MEXICO STATE UNIV	101	82	77	74	24	8	87	77
TOTAL, 1ST 20 INSTS.	2,882	2,399	2,417	1,967	445	432	2,587	2,102
21 UNIV OF CAL BERKELEY 1/	101	91	56	59	45	32	72	71
22 YESHIVA UNIVERSITY	99	88	48	49	51	39	82	69
23 NORTHEASTERN UNIVERSITY	95	93	34	33	61	60	57	56
24 UNIV OF CAL LOS ANGELES 1/	89	96	71	71	19	25	80	83
25 UNIVERSITY OF ARIZONA	89	92	81	83	8	9	83	86
26 UNIVERSITY OF PITTSBURGH	89	72	73	63	16	9	81	67
27 UNIVERSITY OF COLORADO	84	100	56	92	28	8	70	96
28 UNIV OF SOUTH CAROLINA	83	74	71	68	12	6	74	69
29 PENNSYLVANIA STATE UNIV	80	82	74	74	6	8	76	78
30 VANDERBILT UNIVERSITY	80	80	68	74	12	6	72	76
TOTAL, 1ST 30 INSTS.	3,771	3,267	3,048	2,633	723	634	3,337	2,855
31 SUNY AT ALBANY	78	75	64	63	14	12	68	64
32 OHIO STATE UNIVERSITY	75	69	56	56	19	13	59	58
33 UNIV OF MASS AT AMHERST	73	59	66	51	7	8	69	55
34 UNIV OF MD COLLEGE PARK	72	45	66	44	6	1	72	43
35 ADELPHI UNIVERSITY	71	58	23	23	48	35	36	33
36 UNIVERSITY OF GEORGIA	68	73	64	69	4	4	64	70
37 U OF HOUSTON UNIV PARK	68	67	48	49	20	18	54	53
38 WAYNE STATE UNIVERSITY	66	66	36	36	30	30	43	43
39 SAN DIEGO STATE UNIV	65	68	47	53	18	15	51	54
40 CAL SCH PROF PSYCH-L A	64	64	91	9	55	55	29	29
TOTAL, 1ST 40 INSTS.	4,471	3,911	3,527	3,086	944	825	3,886	3,363
41 PACE UNIVERSITY	63	56	18	16	45	40	47	43
42 UNIVERSITY OF WASHINGTON	63	59	47	46	16	13	54	51
43 SUNY AT STONY BROOK	63	55	57	51	6	4	60	53
44 FAIRLEIGH DICKINSON UNIV	61	61	36	36	25	25	44	44
45 SUNY AT BUFFALO	60	59	57	56	31	3	60	59
46 UNIV OF P R-RIO PIEDRAS	60	100	59	100	1	0	59	100
47 UNIV OF SOUTHERN CAL	59	51	40	39	19	12	44	42
48 GEORGE WASHINGTON UNIV	58	70	31	25	27	45	41	40
49 NORTHWESTERN UNIVERSITY	57	59	50	50	7	9	50	48
50 BRIGHAM YOUNG UNIVERSITY	57	53	43	41	14	12	49	45
TOTAL, 1ST 50 INSTS.	5,072	4,534	3,965	3,546	1,107	988	4,397	3,890

SEE FOOTNOTES AT END OF TABLE.

TABLE B-58. -- PSYCHOLOGISTS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1983 AND JANUARY 1984

- CONTINUED INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1984	1983	1984	1983	1984	1983	1984	1983
51 U TENNESSEE KNOXVILLE	56	74	42	56	14	18	46	62
52 LOYOLA UNIV - CHICAGO	56	61	31	36	25	25	39	44
53 BOSTON UNIVERSITY	56	99	32	36	24	23	40	44
54 ROCKEFELLER UNIVERSITY	54	60	47	57	7	3	51	59
55 UNIV OF NC AT CHAPEL HILL	54	42	49	41	5	1	51	41
56 ALBURN UNIVERSITY	54	53	38	36	16	17	46	43
57 COLUMBIA U TEACHERS COL	53I	53I	28I	28I	25I	25I	35I	35I
58 MOFSTRA UNIVERSITY	52	52	32	32	20	20	40	40
59 LONG ISLAND UNIVERSITY	52	48I	31	35I	21	13I	43I	40I
60 NORTHERN ILLINOIS UNIV	52	29	50	27	2	2	50	27
TOTAL, 1ST 60 INSTs.	5,611	5,045	4,345	3,930	1,266	1,135	4,840	4,327
61 TEXAS A & M UNIVERSITY	51	48	51	48	0	0	51	48
62 UNIV ALABAMA BIRMINGHAM	49	50	40	43	9	7	44	44
63 UNIVERSITY OF FLORIDA	49	51	43	47	6	4	44	48
64 UNIV OF WIS-MILWAUKEE	49	49	30	27	19	22	38	37
65 MIAMI UNIVERSITY (OHIO)	49	53	48	51	1	2	48	51
66 WRIGHT STATE UNIVERSITY	49	45	37	33	12	12	31	28
67 SYRACUSE UNIVERSITY	48	76	35	58	13	18	32	67
68 CAL SCH PROF PSYCH-BERKLY	48	23I	10	11I	38	12I	28	19I
69 UNIV OF ILL CHICAGO 2/	48	40	38	35	10	5	41	37
70 LOUISIANA STATE UNIV	47	41	38	37	9	4	43	39
TOTAL, 1ST 70 INSTs.	6,098	5,541	4,715	4,320	1,383	1,221	5,244	4,748
71 FLORIDA STATE UNIVERSITY	47	52	42	47	5	5	46	52
72 EMORY UNIVERSITY	47I	47I	36I	36I	11I	11I	38I	38I
73 UNIVERSITY OF CHICAGO	46	41	45	40	1	1	45	23
74 YALE UNIVERSITY	46	53	33	38	13	15	39	44
75 OHIO UNIVERSITY	45	39	30	26	15	13	35	31
76 UNIVERSITY OF UTAH	45	49	29	40	16	9	34	41
77 HARVARD UNIVERSITY	44	51	38	43	6	8	41	47
78 UNIV OF MISSOURI COLUMBIA	44	48	41	42	3	3	41	42
79 SUNY AT BINGHAMTON	43	33	42	33	1	0	42	33
80 ILLINOIS STATE UNIVERSITY	43	43	31	30	12	13	42	35
TOTAL, 1ST 80 INSTs.	6,548	5,994	5,082	4,695	1,466	1,299	5,649	5,139
81 NEW SCH FOR SOC RESEARCH	43I	42I	15I	15I	28I	27I	43I	42I
82 BALL STATE UNIVERSITY	43	43	43	43	0	0	43	43
83 COLORADO STATE UNIVERSITY	42	45	39	45	3	0	35	45
84 CENTRAL MICHIGAN UNIV	42I	40	34I	33	8I	7	38I	36
85 MICHITA STATE UNIVERSITY	42	40	31	33	11	7	35	35
86 UNIV OF MED & DENT OF N J	42I	41I	28I	27I	14I	14I	35I	34I
87 UNIV OF NEBRASKA-LINCOLN	42	52	40	49	2	3	41	50
88 UNIV OF CAL SANTA BARBARA 1/	42	42	30	32	12	10	36	37
89 GEORGE MASON UNIVERSITY	41I	41	28I	28	13I	13	31I	31
90 THE UNIVERSITY OF ALABAMA	41	41	36	36	5	5	37	37
TOTAL, 1ST 90 INSTs.	6,968	6,421	5,406	5,036	1,562	1,385	6,025	5,532
91 UNIVERSITY OF DENVER	41	44	31	35	10	9	36	37
92 EAST CAROLINA UNIVERSITY	40	39	34	32	6	7	40	39
93 UNIVERSITY OF IOWA	40	42	35	33	5	9	36	35
94 UNIV OF HAWAII-MANOA	40	37	33	31	7	6	36	33
95 NORTH TEXAS STATE UNIV	38	29	30	28	8	1	34	28
96 NOVA UNIVERSITY	38I	37I	16I	15I	22I	22I	19I	19I
97 UNIVERSITY OF ROCHESTER	38	44	36	43	2	1	36	43
98 GEORGIA STATE UNIVERSITY	37	34	31	31	6	3	33	32
99 UNIVERSITY OF MIAMI	37I	36	37I	36	0I	0	37I	36
100 UNIV OF CAL SAN DIEGO 1/	36	37	29	22	7	15	32	30
TOTAL, 1ST 100 INSTs.	7,353	6,800	5,718	5,342	1,635	1,458	6,366	5,866
TOTAL, ALL OTHER INSTs.	3,513	3,686	2,848	2,949	665	737	3,099	3,161

1/ THE UNIVERSITY OF CALIFORNIA SYSTEM REPORTED SIGNIFICANT CHANGES IN JANUARY 1984 COMPARED TO PREVIOUS YEARS, AS THE RESULT OF RECLASSIFYING SCIENCE AND ENGINEERING (S/E) AWARDS AND RESTRUCTURING SOME S/E DEPARTMENTS.

2/ DATA REPRESENT COMBINED TOTALS FOR THE UNIVERSITY OF ILLINOIS CHICAGO CIRCLE AND THE UNIVERSITY OF ILLINOIS MEDICAL CENTER.

NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED.

DASHES INDICATE THAT DATA ARE NOT AVAILABLE; DASHES FOLLOWED BY "C" INDICATE CONFIDENTIAL DATA.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-99. — SOCIAL SCIENTISTS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1983 AND JANUARY 1984

INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1984	1983	1984	1983	1984	1983	1984	1983
TOTAL, ALL INSTITUTIONS	28,524	28,074	23,482	23,103	5,042	4,971	25,311	24,863
1 UNIVERSITY OF MINNESOTA	617	538	562	488	55	50	539	474
2 WEST VIRGINIA UNIVERSITY	498	496	455	463	43	33	472	476
3 TEXAS A & M UNIVERSITY	475	441	475	441	0	0	475	441
4 OHIO STATE UNIVERSITY	411	362	293	291	118	71	316	303
5 RUTGERS THE ST UNIV OF NJ	408	420	405	416	3	4	405	418
6 UNIV OF WIS-MADISON	382	427	300	308	82	119	362	366
7 UNIVERSITY OF MICHIGAN	370	315	307	279	63	36	338	298
8 UNIV OF TEXAS AT AUSTIN	337	334	300	288	37	46	319	310
9 COLUMBIA UNIV MAIN DIV	330	341	240	242	90	99	270	275
10 UNIV OF ILL URBANA	309	315	284	293	25	22	296	290
TOTAL, 1ST 10 INSTS.	4,137	3,989	3,621	3,509	516	480	3,773	3,652
11 MASS INST OF TECHNOLOGY	302	290	229	210	73	40	265	220
12 CORNELL UNIVERSITY	296	306	271	272	25	32	282I	289I
13 NEW YORK UNIVERSITY	296	300	184	179	112	121	214	198
14 MICHIGAN STATE UNIVERSITY	294I	286	289I	282	5I	4	293I	285
15 UNIVERSITY OF KENTUCKY	289	289	246	246	43	43	257	257
16 UNIV OF CAL BERKELEY 1/	283	278	197	199	86	79	238	236
17 INDIANA UNIVERSITY	260	303	199	215	81	88	220	255
18 UNIVERSITY OF PITTSBURGH	275	177E	219	147E	56	30E	245	162E
19 UNIV OF CAL LOS ANGELES 1/	265	265	197	198	68	67	226	228
20 ARIZONA STATE UNIVERSITY	261	180	218	178	43	2	237	172
TOTAL, 1ST 20 INSTS.	6,978	6,621	5,870	5,635	1,108	986	6,253	5,966
21 UNIV OF MD COLLEGE PARK	252	219	196	178	56	41	231	191
22 UNIVERSITY OF CONNECTICUT	252	253	203	210	49	43	223	221
23 NORTHEASTERN UNIVERSITY	248I	245I	104I	102I	144I	143I	158I	157I
24 UNIVERSITY OF FLORIDA	247	255	236	240	11	15	241	248
25 PURDUE UNIVERSITY	246	251	201	200	45	51	219	221
26 BOSTON UNIVERSITY	245	245	198	121	137	124	151	162
27 UNIV OF PENNSYLVANIA	242	356	225	244	17	112	230	259
28 JOHNS HOPKINS UNIVERSITY	241	240	158	157	83	83	183	188
29 TEMPLE UNIVERSITY	239	209	174	159	65	50	195	192I
30 NEW MEXICO STATE UNIV	232	227	201	204	31	23	212	214
TOTAL, 1ST 30 INSTS.	9,422	9,121	7,676	7,450	1,746	1,671	8,301	8,021
31 PENNSYLVANIA STATE UNIV	229	228	206	203	23	25	216	215
32 N C STATE UNIV AT RALEIGH	226	224	179	171	47	51	194	193
33 UNIV OF HAWAII-HONOLULU	223	229	174	176	49	53	198	200
34 UNIVERSITY OF WASHINGTON	222	229	167	170	55	59	194	197
35 UNIVERSITY OF ARIZONA	221	208	189	181	32	27	201	193
36 UNIV OF SOUTH CAROLINA	219	242	190	207	29	35	190	211
37 UNIVERSITY OF IOWA	210	207	179	178	31	29	189	190
38 UNIV OF P R-RIO PIEDRAS	202	245	199	237	3	8	200	239
39 WAYNE STATE UNIVERSITY	185	185	128	128	57	57	144	144
40 IOWA ST U OF SCI & TECH	183	164	164	147	19	17	175	156
TOTAL, 1ST 40 INSTS.	11,542	11,282	9,451	9,250	2,091	2,032	10,209	9,965
41 SOUTHERN ILL U-CARBONDALE	181	192	163	173	18	19	171	181
42 UNIVERSITY OF GEORGIA	180	177	168	167	12	10	173	171
43 FLORIDA STATE UNIVERSITY	178	188	164	177	14	11	170	183
44 SUNY AT ALBANY	178	178	141	145	37	33	151	151
45 HOWARD UNIVERSITY	178	82	152	69	26	13	161	73
46 UNIV OF ILL CHICAGO 2/	177	193	148	158	29	35	160	166
47 HARVARD UNIVERSITY	176	178	142	138	34	40	147	146
48 FLORIDA INST OF TECH	169	185	17	15	152	170	65	67
49 AMERICAN UNIVERSITY	168	203	103	113	65	90	128	142
50 U TENNESSEE KNOXVILLE	164	151	148	138	16	13	153	143
TOTAL, 1ST 50 INSTS.	13,291	13,009	10,797	10,543	2,494	2,466	11,691	11,390

SEE FOOTNOTES AT END OF TABLE.

TABLE B-59. — SOCIAL SCIENTISTS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1983 AND JANUARY 1984

- CONTINUED INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1984	1983	1984	1983	1984	1983	1984	1983
51 NORTHWESTERN UNIVERSITY	164	179	143	152	21	27	143	157
52 UNIVERSITY OF KANSAS	163	174	163	174	0	0	163	174I
53 UNIV OF NC AT CHAPEL HILL	162	154	148	144	14	10	155	149
54 GEORGE WASHINGTON UNIV	162	156	89	94	73	62	117	115
55 UNIVERSITY OF UTAH	157	155	122	122	35	33	137	136
56 AUBURN UNIVERSITY	156	170	139	149	17	21	144	158
57 UNIVERSITY OF CINCINNATI	154	73	133	67	21	6	139	69
58 SAN DIEGO STATE UNIV	153	193	124	141	29	52	135	153
59 YALE UNIVERSITY	153	145	130	129	23	16	139	136
60 LOUISIANA STATE UNIV	151	159	140	144	11	13	145	144
TOTAL, 1ST 60 INSTS.	14,866	14,567	12,128	11,861	2,738	2,706	13,110	12,785
61 KANS ST U - AG & APP SCI	151	171	139	147	12	24	144	157
62 UNIV OF CAL SANTA BARBARA 1/	148	157	106	107	42	50	123	129
63 UNIVERSITY OF COLORADO	148	138	121	134	27	4	119	136
64 SUNY AT STONY BROOK	146	131	121	111	25	20	128	117
65 PORTLAND STATE UNIVERSITY	143	146	105	105	38	41	107	104
66 SUNY AT BUFFALO	142I	138	132I	129	10I	9	137I	134
67 UNIV OF SOUTHERN CAL	142	131I	87	94I	55	37I	112	111I
68 UNIV OF SOUTH FLORIDA	140	124I	119	122I	21	2I	139	123I
69 UNIV OF MISSOURI COLUMBIA	139	141	130	128	9	13	134	134
70 UNIV OF MASS AT AMHERST	130	137	125	124	5	13	120	128
TOTAL, 1ST 70 INSTS.	16,295	15,981	13,313	13,062	2,982	2,919	14,378	14,060
71 CUNY HUNTER COLLEGE	129	128	77	79	52	49	93	89
72 UNIVERSITY OF OKLAHOMA	128	80	126	78	2	2	125	79
73 WESTERN MICHIGAN UNIV	127	125	106	111	21	14	111	114
74 SYRACUSE UNIVERSITY	126	115	121	109	5	6	102	112
75 ST JOHN'S UNIVERSITY (NY)	125	91I	75	56I	50	35I	91	68I
76 UNIVERSITY OF DENVER	125	125	105	111	20	14	117	117
77 DUKE UNIVERSITY	124	148	110	124	14	24	115	140
78 UNIV OF WIS-MILWAUKEE	123	159	59	77	64	82	86	111
79 COLORADO STATE UNIVERSITY	123	127	122	126	1	1	116	126
80 UNIVERSITY OF CHICAGO	121	133	120	128	1	5	121	120
TOTAL, 1ST 80 INSTS.	17,546	17,212	14,334	14,061	3,212	3,151	15,457	15,138
81 OKLAHOMA STATE UNIVERSITY	117	118	107	113	10	5	111	115
82 EMORY UNIVERSITY	116I	114I	95I	93I	21I	21I	100I	98I
83 PRINCETON UNIVERSITY	116	121	105	109	11	12	103	116
84 BRIGHAM YOUNG UNIVERSITY	116	121	97	96	19	25	103	104
85 UNIV OF CAL DAVIS 1/	115	120	90	100	25	20	104	116
86 SUNY AT BINGHAMTON	115	98	80	91	35	7	90	93
87 GEORGE MASON UNIVERSITY	115I	110	73I	71	42I	39	74I	72
88 U OF HOUSTON UNIV PARK	113	114	88	95	25	19	93	100
89 FORDHAM UNIVERSITY	112	114	66	66	46	48	81	82
90 LONG ISLAND UNIVERSITY	112	182I	67	74I	45	108I	73I	110I
TOTAL, 1ST 90 INSTS.	18,693	18,414	15,202	14,967	3,491	3,455	16,399	16,149
91 GEORGETOWN UNIVERSITY	112	114	85	84	27	30	99	99
92 KENT STATE UNIVERSITY	112	111	87	97	25	14	95	102
93 NORTHERN ILLINOIS UNIV	111	111	97	89	14	22	105	99
94 BRANDEIS UNIVERSITY	110	112	110	112	0	0	110	112
95 ILLINOIS STATE UNIVERSITY	110	119	95	101	15	18	99	97
96 STANFORD UNIVERSITY	107	127	86	100	21	27	87	97
97 UNIVERSITY OF NEW MEXICO	106	110	92	88	14	22	97	96
98 UNIVERSITY OF VIRGINIA	105	104	89	86	16	18	90	88
99 MISSISSIPPI STATE UNIV	105	102	101	99	4	3	102	100
100 UNIV OF NEBRASKA-LINCOLN	104	101	101	99	3	2	103	100
TOTAL, 1ST 100 INSTS.	19,775	19,535	16,145	15,924	3,630	3,611	17,389	17,143
TOTAL, ALL OTHER INSTS.	8,749	8,539	7,337	7,179	1,412	1,360	7,922	7,720

1/ THE UNIVERSITY OF CALIFORNIA SYSTEM REPORTED SIGNIFICANT CHANGES IN JANUARY 1984 COMPARED TO PREVIOUS YEARS, AS THE RESULT OF RECLASSIFYING SCIENCE AND ENGINEERING (S/E) AWARDS AND RESTRUCTURING SOME S/E DEPARTMENTS.

2/ DATA REPRESENT COMBINED TOTALS FOR THE UNIVERSITY OF ILLINOIS CHICAGO CIRCLE AND THE UNIVERSITY OF ILLINOIS MEDICAL CENTER.

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SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-60. — FULL-TIME-EQUIVALENT SCIENTISTS AND ENGINEERS EMPLOYED IN RESEARCH AND DEVELOPMENT AT UNIVERSITIES AND COLLEGES: JANUARY 1978 AND JANUARY 1983-84

INSTITUTIONAL RANKING	RAD FTE			TOTAL FTE		
	1984	1983	1978	1984	1983	1978
TOTAL, ALL INSTITUTIONS	61,855	60,594	55,942	320,292	306,442	271,656
1 JOHNS HOPKINS UNIVERSITY	2,643	2,542	693I	3,499	3,395	2,086
2 UNIV OF WIS-MADISON	1,912	1,906	1,724	3,524	3,506	3,334
3 YALE UNIVERSITY	1,472	1,102	1,029	1,841	1,832	1,755I
4 UNIV OF CAL SAN FRANCISCO 1/	1,176	1,122	319I	1,843	1,799	1,146I
5 CORNELL UNIVERSITY	1,066I	1,094I	1,236	2,540	2,544I	2,643
6 UNIV OF CAL DAVIS 1/	1,065	974	401I	1,937	1,799	1,356I
7 MASS INST OF TECHNOLOGY	1,060I	845I	880I	2,910	2,330	2,237
8 TEXAS A & M UNIVERSITY	1,045	987	596I	2,418	2,300	2,072
9 UNIV OF CAL LOS ANGELES 1/	1,001	936	593I	2,524	2,578	2,182I
10 LOUISIANA STATE UNIV	996	954	436	2,845	2,729	2,102
TOTAL, 1ST 10 INSTS.	13,458	12,462	7,908	25,962	24,812	20,913
11 UNIV OF CAL SAN DIEGO 1/	951	949	302I	1,491	1,491	993I
12 UNIV OF CAL BERKELEY 1/	919	845	493I	1,914	1,814	1,770I
13 WASHINGTON UNIVERSITY	915	920	446	1,634	1,625	1,232
14 UNIVERSITY OF ARIZONA	853	823	459I	1,578	1,544	1,569
15 HARVARD UNIVERSITY	804	671	818	6,193	5,890	4,261
16 UNIVERSITY OF MICHIGAN	788	748	885	2,690	2,342	3,009
17 UNIVERSITY OF WASHINGTON	778	721	756	2,136	2,115I	2,323
18 UNIV OF ILL URBANA	771	640	819	2,323	2,242	2,163
19 COLUMBIA UNIV MAIN DIV	748	763	575I	2,098	2,121	1,721
20 PENNSYLVANIA STATE UNIV	685	651	416	2,235	2,201	1,985
TOTAL, 1ST 20 INSTS.	21,672	20,196	13,880	50,258	48,200	41,949
21 UNIV OF TEXAS AT AUSTIN	679	668	570	1,788	1,737	1,774
22 GEORGIA INSTITUTE OF TECH	635	579	567	1,164	1,125	1,024
23 U TEXAS SYSTEM CANCER CTR	635	633	624	827	834	801
24 UNIVERSITY OF CHICAGO	594	604	665	1,269	1,229	1,329
25 UNIV OF MISSOURI COLUMBIA	589	568	316I	1,273	1,243	1,142I
26 U TEX HLTH SCI CTR S ANTO	579	589	406	1,053	1,036	730
27 UNIVERSITY OF GEORGIA	555	552	519	1,168	1,168	1,166
28 NEW YORK UNIVERSITY	521	802	732	1,534	1,597	1,511
29 MICHIGAN STATE UNIVERSITY	518I	512	355	1,782	1,734	1,674
30 UNIV OF PENNSYLVANIA	516	541	972I	1,687	1,751	2,967I
TOTAL, 1ST 30 INSTS.	27,496	26,246	19,610	63,806	61,656	56,067
31 STANFORD UNIVERSITY	509	525	1,045	1,018	1,050I	1,723
32 NEW MEXICO STATE UNIV	507	442	119	1,271	1,150	467
33 OREGON STATE UNIVERSITY	496	545	598	1,109	1,104	1,113
34 UNIV OF MD COLLEGE PARK	487	383	149	1,498	1,355	1,322
35 NORTHWESTERN UNIVERSITY	479	414	307I	1,304	1,330	902
36 DUKE UNIVERSITY	476	701	807	1,555	1,555	1,442
37 BAYLOR COL OF MEDICINE	472	301	271I	816	769	705I
38 UNIV OF CAL RIVERSIDE 1/	458	457	125I	618	612	392I
39 CASE WESTERN RESERVE UNIV	457	465	489	1,371	1,459	1,318
40 N C STATE UNIV AT RALEIGH	450	423	315	1,787	1,775	1,599
TOTAL, 1ST 40 INSTS.	32,291	30,905	23,839	76,154	73,817	67,050
41 KANS ST U - AG & APP SCI	450	501	217	1,120	1,153	862
42 UNIVERSITY OF MINNESOTA	449	524	612	2,900	2,791	3,146
43 UNIVERSITY OF FLORIDA	445	415	305I	2,455	2,423	2,024
44 SUNY AT STONY BROOK	434	405	256	1,221	1,143	715
45 ROCKEFELLER UNIVERSITY	432	401	347	478	443	384
46 UNIVERSITY OF IOWA	398	445	403	1,858	1,814	1,398
47 IOWA ST U OF SCI & TECH	390	385	407	1,475	1,434	1,226
48 UNIVERSITY OF CONNECTICUT	388	376	326	1,369	1,396	1,168
49 U TEX HLTH SCI CTR DALLAS	378	358	297	1,128	1,037	712
50 UNIV OF ILL CHICAGO 2/	376	357	341	1,299	1,284	1,504
TOTAL, 1ST 50 INSTS.	36,434	35,074	27,354	91,460	88,740	80,189

SEE FOOTNOTES AT END OF TABLE.

TABLE B-60. -- FULL-TIME-EQUIVALENT SCIENTISTS AND ENGINEERS EMPLOYED IN RESEARCH AND DEVELOPMENT AT UNIVERSITIES AND COLLEGES: JANUARY 1978 AND JANUARY 1983-84

INSTITUTIONAL RANKING	R&D FTE			TOTAL FTE		
	1984	1983	1978	1984	1983	1978
51 UNIVERSITY OF NEW MEXICO	374	299	226	1,017	934	713
52 UNIV OF HAWAII-MANOA	374	370	359	1,169	1,138	1,123
53 UNIVERSITY OF KENTUCKY	366	366	375	2,030	2,030	1,285
54 UNIVERSITY OF ROCHESTER	349	499	594	1,148	1,208	1,021
55 CALIFORNIA INST OF TECH	347	347	307I	530	534	722
56 MISSISSIPPI STATE UNIV	346	280	346E	698	699	632
57 CUNY MT SINAI SCH OF MED	327I	416I	273I	1,056	1,301I	802I
58 RUTGERS THE ST UNIV OF NJ	326	342	365I	1,520	1,538	1,452I
59 UNIV OF NEBRASKA-LINCOLN	319	327	253	771	769	764
60 UNIVERSITY OF KANSAS	312I	264I	347I	1,933	1,297I	1,295I
TOTAL, 1ST 60 INSTS.	39,877	38,547	30,805	102,935	100,190	89,998
61 BOSTON UNIVERSITY	312	313	226	1,032	1,044	705
62 OREGON HLTH SCIENCES UNIV	308I	300I	319	635I	612I	622
63 UNIVERSITY OF UTAH	307I	359E	378I	1,436	1,837	1,426
64 UNIV OF CAL IRVINE 1/	302	292	151I	871	857	833I
65 UNIVERSITY OF VIRGINIA	298	289	229I	1,067	1,034I	835I
66 COLORADO STATE UNIVERSITY	294	298	217	1,000	1,011	875
67 UNIV ALABAMA BIRMINGHAM	295	279	298	1,185	1,144	1,005
68	295	8I	54	-C	106I	468
69 YESHIVA UNIVERSITY	284	374	290	949	988E	1,076
70 EMORY UNIVERSITY	277I	279I	256I	873I	859I	750I
TOTAL, 1ST 70 INSTS.	42,894	41,343	33,228	112,613	109,686	98,293
71 UNIVERSITY OF CINCINNATI	277	261	223	1,385	1,179	872
72 UNIVERSITY OF COLORADO	269	446	330I	852	1,476	1,281
73 VA POLYTECH INST & ST U	264	293	309	1,076	1,093	978
74 PURDUE UNIVERSITY	264	280	260	2,185	2,181	1,690
75 OKLAHOMA STATE UNIVERSITY	263	217	204	798	749	676
76 MED UNIV OF SC CAROLINA	262I	204	167I	803I	613	616I
77 GEORGETOWN UNIVERSITY	258	248	215I	914	884	667I
78 INDIANA UNIVERSITY	258	283	291I	1,877	1,967	1,579I
79 ALBURN UNIVERSITY	257	228	225	1,072	1,083	790
80 VANDERBILT UNIVERSITY	253	264	284I	829	915	818I
TOTAL, 1ST 80 INSTS.	45,486	44,069	35,740	124,407	121,829	108,260
81 OHIO STATE UNIVERSITY	252	201	544	2,779	2,801	2,984
82 UNIVERSITY OF MIAMI	244I	70	270	1,219	1,198	1,040
83 CARNEGIE-MELLON UNIV	244	363I	198I	406	587I	528I
84 SUNY AT BUFFALO	226I	0	285I	1,043	1,009	1,093I
85 BRANDEIS UNIVERSITY	226	228	90I	346	350	255I
86 UNIV OF NC AT CHAPEL HILL	225	184	288I	1,437	1,211	1,163
87 CLEMSON UNIVERSITY	224I	210I	197	881I	889I	789
88 SYRACUSE UNIVERSITY	222	209	219	550	552	537
89 WOODS HOLE OCEANOGRAPHIC INST	221	228	168	221	228	233E
90 PRINCETON UNIVERSITY	214	216	402	904	927	630
TOTAL, 1ST 90 INSTS.	47,786	45,981	38,406	133,897	131,183	117,512
91 MAYNE STATE UNIVERSITY	213	213	363I	1,164E	1,164	1,360I
92 UNIVERSITY OF OKLAHOMA	208	204I	22	1,152	1,058I	313
93 UNIV OF MD BALT PROF SCH	206	149	111	1,054	1,018	769
94 TUFTS UNIVERSITY	203I	201I	88	510I	503I	354
95 LOMA LINDA UNIVERSITY	202I	202E	176I	557I	549I	542I
96 MONTANA STATE UNIVERSITY	200I	185	114I	541I	526	398I
97 UNIVERSITY OF DELAWARE	200	210	181	547	574	481
98 GEORGE WASHINGTON UNIV	193	201	245	880	859	797
99 UNIV OF CAL SANTA BARBARA 1/	186	174	108I	564	542	436I
100 FLORIDA STATE UNIVERSITY	180	153	129	649	682	480
TOTAL, 1ST 100 INSTS.	49,781	47,877	40,048	141,519	138,661	123,442
TOTAL, ALL OTHER SAMPLED INSTS.	11,454	12,717	15,914	125,540	167,781	148,214
ESTIMATED TOTAL, NON-SAMPLED INSTS.	618	0	0	53,233	0	0

1/ THE UNIVERSITY OF CALIFORNIA SYSTEM REPORTED SIGNIFICANT CHANGES IN JANUARY 1984 COMPARED TO PREVIOUS YEARS, AS THE RESULT OF RECLASSIFYING SCIENCE AND ENGINEERING (S/E) AWARDS AND RESTRUCTURING SOME S/E DEPARTMENTS.

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SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-61. — FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES
AND COLLEGES BY SEX: JANUARY 1980 AND JANUARY 1983-84

INSTITUTIONAL RANKING	WOMEN			MEN			TOTAL		
	1984	1983	1980	1984	1983	1980	1984	1983	1980
TOTAL, ALL INSTITUTIONS	57,304	53,525	44,215	224,255	220,567	210,775	281,561	274,092	254,990
1 HARVARD UNIVERSITY	963	875	596	3,753	3,582	3,078	4,716	4,457	3,674
2 UNIV OF WIS-MADISON	763	744	751	2,358	2,373	2,374	3,121	3,117	3,127
3 LOUISIANA STATE UNIV	728	669	608	2,021	1,958	1,951	2,749	2,627	2,559
4 UNIV OF CAL LOS ANGELES 1/	600	657	181	1,533	1,532	1,208	2,133	2,189	1,389
5 UNIVERSITY OF PITTSBURGH	561	520E	451I	1,407	1,240E	1,185I	1,968	1,780E	1,636
6 JOHNS HOPKINS UNIVERSITY	540	504	423	2,845	2,825	2,715	3,405	3,329	3,138
7 UNIV OF CAL SAN FRANCISCO 1/	539	537	227	911	912	711	1,450	1,449	938
8 OHIO STATE UNIVERSITY	532	485	588	2,005	1,961	1,954	2,537	2,446	2,942
9 UNIVERSITY OF MICHIGAN	530	431	799	1,884	1,690	1,875	2,414	2,121	2,674
10 UNIVERSITY OF MINNESOTA	529	490	513	2,436	2,372	2,517	2,965	2,862	3,030
TOTAL, 1ST 10 INSTS.	6,285	5,912	5,137	21,173	20,465	19,570	27,458	26,377	24,707
11 COLUMBIA UNIV MAIN DIV	510	495	363	1,445	1,470	1,310	1,955	1,965	1,673
12 MASS INST OF TECHNOLOGY	493	352	300	2,213	1,848	1,775	2,706	2,200	2,075
13 CORNELL UNIVERSITY	480	432	366	1,942	2,019	1,965	2,402	2,451	2,331
14 UNIVERSITY OF KANSAS	476	260I	173I	976	1,027I	1,070I	1,452	1,287	1,243I
15 UNIVERSITY OF FLORIDA	455	431	357	1,930	1,928	1,706	2,385	2,359	2,063
16 YALE UNIVERSITY	444	441	417I	1,341	1,305	1,427I	1,785	1,746	1,844
17 INDIANA UNIVERSITY	414	420	298I	1,289	1,325	1,144I	1,703	1,745	1,442I
18 UNIVERSITY OF KENTUCKY	402	402	376	1,518	1,518	1,554	1,920	1,920	1,930
19 UNIV OF ILL URBANA	369	343	283	1,806	1,797	1,769	2,175	2,140	2,052
20 UNIVERSITY OF WASHINGTON	367	374	394	1,487	1,454	1,596	1,854	1,828	1,990
TOTAL, 1ST 20 INSTS.	10,695	9,862	8,464	37,140	36,156	34,886	47,835	46,018	43,350
21 U TEX HLTH SCI CTR DALLAS	357	296	112	622	644	623	979	940	735
22 UNIV OF MD BALT PROF SCH	357	347	211	527	471	511	884	818	722
23 U TEX HLTH SCI CTR HOUSTN	354I	347	221	622I	607	618	976E	954	839
24 UNIVERSITY OF IOWA	354	335	279	1,376	1,328	1,274	1,730	1,663	1,553
25 U TEXAS SYSTEM CANCER CTR	348	348	410I	456	451	400I	804	799	810I
26 WASHINGTON UNIVERSITY	339	352	294	1,270	1,215	1,157	1,609	1,567	1,451
27 UNIV OF ILL CHICAGO 2/	323	213	389	840	843	1,088	1,163	1,156	1,477
28 DUKE UNIVERSITY	320	245	236	1,183	1,257	1,210	1,503	1,502	1,446
29 UNIV OF CAL DAVIS 1/	318	281	126	1,356	1,273	1,033	1,674	1,554	1,159
30 RUTGERS THE ST UNIV OF NJ	301	313	326	1,206	1,209	1,236	1,507	1,522	1,562
TOTAL, 1ST 30 INSTS.	14,066	13,039	11,068	46,598	45,454	44,036	60,664	58,493	55,104
31 WAYNE STATE UNIVERSITY	300E	300	305	750E	750	756	1,050E	1,050	1,061
32 UNIVERSITY OF CONNECTICUT	296	313	287	975	994	949	1,271	1,307	1,236
33 UNIVERSITY OF NEW MEXICO	292	256	233	592	536	658	884	792	891
34 UNIV OF CAL SAN DIEGO 1/	289	290	80	1,012	1,039	868	1,301	1,329	948
35 U TEX HLTH SCI CTR S ARTO	280	265	182I	687	674	627I	967	939	805I
36 UNIV OF CAL BERKELEY 1/	278	275	175	1,274	1,213	1,062	1,552	1,488	1,237
37 CASE WESTERN RESERVE UNIV	275	280	217	1,051	1,087	1,055	1,326	1,367	1,272
38 PURDUE UNIVERSITY	275	284	174	1,752	1,741	1,552	2,027	2,027	1,726
39 UNIV OF PENNSYLVANIA	271	265	211	1,280	1,304	1,027	1,551	1,569	1,238
40 PENNSYLVANIA STATE UNIV	265	227	213	1,860	1,858	1,795	2,125	2,085	2,008
TOTAL, 1ST 40 INSTS.	16,887	15,796	13,145	57,831	56,650	54,385	74,718	72,446	67,530
41 MICHIGAN STATE UNIVERSITY	262I	257	251	1,476I	1,437	1,418	1,738I	1,694	1,669
42 NEW YORK UNIVERSITY	262	271	337	1,129	1,134	1,072	1,391	1,405	1,409
43 UNIV OF TEXAS AT AUSTIN	261	263	334	1,406	1,361	1,323	1,667	1,624	1,657
44 HOWARD UNIVERSITY	256	247	252I	898	770	686I	1,154	1,017	938
45 SUNY AT STONY BROOK	253	240	134	911	854	761	1,164	1,094	895
46 UNIVERSITY OF CINCINNATI	252	185	132	1,065	930	827	1,317	1,115	959
47 CHEYNEY UNIV OF PENN	251I	244I	111	227I	225I	46I	478I	469I	57I
48 UNIV OF P R-RIO PIEDRAS	250	303	192I	267	476	249I	517	779	441I
49 UNIVERSITY OF UTAH	249	449	199I	981	1,308	1,077I	1,230	1,757	1,276E
50 UNIV OF NC AT CHAPEL HILL	248	187	173	1,110	1,007	1,013	1,358	1,194	1,186
TOTAL, 1ST 50 INSTS.	19,431	18,442	15,160	67,301	66,152	62,857	86,732	84,594	78,017

SEE FOOTNOTES AT END OF TABLE.

TABLE B-61. — FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY SEX: JANUARY 1980 AND JANUARY 1983-84

- CONTINUED INSTITUTIONAL RANKING	WOMEN			MEN			TOTAL		
	1984	1983	1980	1984	1983	1980	1984	1983	1980
51 MED UNIV OF SO CAROLINA	248I	243	222	550I	535	505	798I	778	727
52 UNIV OF MISSOURI COLUMBIA	247	209	141	984	987	959	1,231	1,196	1,100
53 UNIVERSITY OF ARIZONA	243	215	194	1,250	1,253	1,145	1,493	1,468	1,339
54 GEORGETOWN UNIVERSITY	242	229	201	643	620	593	885	849	794
55 UNIV MT SINAI SCH OF MED	242I	233I	276I	721I	920I	846I	963	1,213I	1,142I
56 UNIVERSITY OF CHICAGO	235	225	236	1,023	1,026	1,085	1,258	1,255	1,321
57 UNIVERSITY OF MIAMI	231I	227E	145I	956I	938E	902I	1,187I	1,165E	1,047
58 UNIV OF SOUTH CAROLINA	228	257	227	721	735	731	949	992	958
59 UNIV OF HAWAII-MANOA	227	212	194	818	811	799	1,045	1,023	993
60 TEMPLE UNIVERSITY	222	221	193	829	882	897	1,051	1,103	1,090
TOTAL, 1ST 60 INSTS.	21,796	20,777	17,189	75,796	74,859	71,339	97,592	95,636	88,526
61 CITY COLLEGES OF CHICAGO	221I	216	224	451I	437	432	672I	653	656
62 UNIV OF MD COLLEGE PARK	219	220	162	1,133	1,056	924	1,252	1,276	1,086
63 UNIV OF P R-MED SCI CMPS	217I	212	137I	319I	310	255I	536I	522	392I
64 BOSTON UNIVERSITY	213	233	271	656	652	644	885	885	917
65 UNIV OF SOUTHERN CAL	210	199I	196	1,122	1,097I	1,078	1,332	1,296I	1,274
66 NORTHWESTERN UNIVERSITY	210	212	140	1,040	1,040	704	1,250	1,252	844
67 SUNY DOWNSTATE MED CTR	207I	202I	196	506I	493I	482	713I	695I	678
68 ARIZONA STATE UNIVERSITY	205	126	45I	762	599	632I	967	725	677
69 NEW MEXICO STATE UNIV	204	186	107	1,010	930	683	1,214	1,116	790
70 WEST VIRGINIA UNIVERSITY	203	186	204	847	871	880	1,050	1,057	1,084
TOTAL, 1ST 70 INSTS.	23,905	22,769	18,871	83,642	82,344	78,055	107,547	105,113	96,926
71 UNIVERSITY OF OKLAHOMA	199	154	200	883	812	749	1,082	966	949
72 NORTHEASTERN UNIVERSITY	199I	197I	113	504I	493I	329	703I	690I	442
73 YESHIVA UNIVERSITY	197	197I	193I	663	669I	654I	840	846E	847
74	-C	11I	48I	-C	95I	443I	-C	106I	491I
75 IOWA ST U OF SCI & TECH	183	190	176	1,204	1,168	1,303	1,392	1,358	1,479
76 BAYLOR COL OF MEDICINE	185	152	130	675	640	608	860	792	738
77 UNIVERSITY OF VIRGINIA	184I	167I	110	883I	875I	796	1,067	1,042	906
78 UNIV OF MASS AT AMHERST	179	92	91	770	693	698	949	785	789
79 UNIV ALABAMA BIRMINGHAM	176	173	146	957	930	884	1,133	1,103	1,030
80 U OF ARKANSAS MED SCI CAM	175	161	134	590	568	545	765	729	679
TOTAL, 1ST 80 INSTS.	25,776	24,263	20,212	91,118	89,287	85,064	116,894	113,550	105,276
81 UNIVERSITY OF ROCHESTER	173	216	146	959	973	921	1,132	1,189	1,067
82 N C STATE UNIV AT RALEIGH	173	155	141	1,566	1,570	1,436	1,739	1,725	1,577
83 UNIV OF CAL IRVINE 1/	172	164	62	600	607	451	772	771	513
84 TEXAS A & M UNIVERSITY	169	147	110	2,249	2,153	2,058	2,418	2,300	2,168
85 U TENNESSEE KNOXVILLE	168	161	152	682	668	718	850	829	870
86 VIRGINIA COMMONWLTN UNIV	167	155	145	697	694	673	864	849	818
87 TEXAS WOMAN'S UNIVERSITY	162	174	67	66	77	60	228	251	127
88 UNIVERSITY OF LOUISVILLE	161	90	74	508	582	495	749	672	569
89 NEW YORK MEDICAL COLLEGE	158	165	107	463	465	379I	621	630	486I
90 OREGON HLTH SCIENCES UNIV	157I	153I	167I	372I	363I	391	529I	516I	558
TOTAL, 1ST 90 INSTS.	27,436	25,843	21,383	99,360	97,439	92,646	126,796	123,282	114,029
91 UNIV OF MED & DENT OF N J	152I	148I	148	624I	608I	606	776I	756I	754
92 KANS ST U - AG & APP SCI	149	140	105	925	914	814	1,074	1,054	919
93 MEDICAL COL OF GEORGIA	147	101	111	412	292	334	559	393	445
94 CLEMSON UNIVERSITY	146I	132I	74I	830I	752I	767I	976E	884I	841
95 SOUTHERN ILL U-CARBONDALE	145	140	88	635	661	598	780	801	686
96 UNIV OF SOUTH FLORIDA	142	106I	89I	511	479I	443I	653	585I	552I
97 UNIV TENN CTR HEALTH SCI	140	137	174	400	391	432	540	528	606
98 INTER AM U PR-SAN GERMAN	138	128	73I	146	131	181	284	259	161I
99 EMORY UNIVERSITY	137I	135I	129I	698I	685I	643I	835I	820I	772I
100 GEORGE WASHINGTON UNIV	136	142	146	522	497	430	658	639	626
TOTAL, 1ST 100 INSTS.	28,868	27,152	22,520	105,063	102,849	97,871	133,931	130,001	120,391
TOTAL, ALL OTHER SAMPLED INSTS.	18,775	26,373	21,695	86,220	117,718	112,904	104,995	144,091	134,599
ESTIMATED TOTAL, NON-SAMPLED INSTS.	9,663	0	0	32,972	0	0	42,635	0	0

1/ THE UNIVERSITY OF CALIFORNIA SYSTEM REPORTED SIGNIFICANT CHANGES IN JANUARY 1984 COMPARED TO PREVIOUS YEARS, AS THE RESULT OF RECLASSIFYING SCIENCE AND ENGINEERING (S/E) AWARDS AND RESTRUCTURING SOME S/E DEPARTMENTS.

2/ DATA REPRESENT COMBINED TOTALS FOR THE UNIVERSITY OF ILLINOIS CHICAGO CIRCLE AND THE UNIVERSITY OF ILLINOIS MEDICAL CENTER.

NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED. DASHES INDICATE THAT DATA ARE NOT AVAILABLE; DASHES FOLLOWED BY "C" INDICATE CONFIDENTIAL DATA.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-62. — PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES
AND COLLEGES BY SEX: JANUARY 1980 AND JANUARY 1983-84

INSTITUTIONAL RANKING	WOMEN			MEN			TOTAL		
	1984	1983	1980	1984	1983	1980	1984	1983	1980
TOTAL, ALL INSTITUTIONS	24,707	22,247	17,443	64,182	62,570	51,816	88,889	84,837	69,259
1 HARVARD UNIVERSITY	452	404	264	1,917	1,854	1,427	2,369	2,258	1,893
2 OHIO STATE UNIVERSITY	412	320	168	1,637	1,390	938	2,049	1,710	1,106
3 CNTY COL ALLEGHENY COUNTY	385I	356I	259I	921I	854I	604I	1,304I	1,210I	899I
4 UNIV OF MII-MADISON	304	282	261	405	394	376	709	678	637
5 UNIV OF CAL SAN FRANCISCO 1/	301	257	91I	525	463	324I	826	720	415
6 UNIV OF CAL LOS ANGELES 1/	301	319	257I	538	490	774I	839	809	1,031
7 UNIV OF CAL BERKELEY 1/	249	219	249I	551	523	749I	800	742	998
8 INDIANA UNIVERSITY	240	224	166I	540	475	366I	780	699	532I
9 UNIV OF CAL DAVIS 1/	213	167	94I	310	284	285I	523	451	379
10 UNIVERSITY OF WASHINGTON	202	201	156	355	379	383	557	580	539
TOTAL, 1ST 10 INSTS.	3,059	2,749	1,963	7,699	7,108	6,426	10,758	9,857	8,389
11 INTER AM U PR-SAN GERMAN	197	147	61I	340	292	120I	537	439	181I
12 UNIVERSITY OF MICHIGAN	186	146	199	457	355	415	643	501	614
13 NORTHEASTERN UNIVERSITY	174I	173I	47	642I	636I	184	816I	809I	231
14 BOSTON UNIVERSITY	151	146	83	359	341	249	505	487	332
15 UNIV OF MD BALT PROF SCH	143	109	74	362	345	207	505	454	281
16 LOUISIANA STATE UNIV	140	140	104	393	389	404	533	529	508
17 NEW YORK UNIVERSITY	136	152	161	520	538	480	654	690	641
18 UNIV OF CAL SAN DIEGO 1/	130	103	34I	247	210	106I	397	313	140
19 GEORGE WASHINGTON UNIV	129	131	101	451	470	439	580	601	540
20 UNIVERSITY OF IOWA	126	115	112	204	218	171	330	333	283
TOTAL, 1ST 20 INSTS.	4,571	4,111	2,939	11,694	10,902	9,201	16,245	15,013	12,140
21 UNIVERSITY OF PITTSBURGH	126	82E	64I	252	248E	216I	378	330E	282
22 UNIVERSITY OF KENTUCKY	122	122	79	244	244	221	364	364	300
23 U TEX HLTH SCI CTR DALLAS	122	82	25	257	215	124	379	297	149
24 UNIVERSITY OF CONNECTICUT	120	101	103	170	163	182	290	264	285
25 CALIF ST UNIV LONG BEACH	120I	118	58	264I	257	187	386I	375	245
26 COLUMBIA UNIV MAIN DIV	120	131	104	310	335	348	430	466	452
27 CUYAHOGA CNTY COL DIST	118I	110I	80I	352I	325I	229I	470I	435I	309I
28 UNIVERSITY OF UTAH	117	54	101I	377	178	301I	494	232	402E
29 UNIVERSITY OF MINNESOTA	115	123	157	360	344	433	475	467	590
30 PURDUE UNIVERSITY	113	101	65	276	280	205	389	381	270
TOTAL, 1ST 30 INSTS.	5,764	5,135	3,777	14,558	13,491	11,647	20,322	18,626	15,424
31 MASS INST OF TECHNOLOGY	112	70	61	296	186	230	408	256	291
32 ST LOUIS COMMUNITY COL	112I	105I	101	303I	279I	271	415I	384I	371
33 MERCY COLLEGE	111I	105I	82	171I	164I	126	282I	269I	208
34 UNIV OF ILL URBANA	109	124	81	163	148	210	272	272	291
35 INTER AM U PR-CTRL OFF	109	131	94	248	251	208	357	382	302
36 UNIV OF SOUTHERN CAL	107	80I	74	378	276I	258	485	356I	332
37 UNIV OF HAWAII-MANOA	104	86	66	206	207	186	310	293	252
38 PENNSYLVANIA STATE UNIV	103	102	63	199	149	107	302	251	170
39 UNIV OF ILL CHICAGO 2/	102	99	108	228	238	708	330	337	816
40 YALE UNIVERSITY	100	98	124I	78	73	191I	178	171	315
TOTAL, 1ST 40 INSTS.	6,833	6,135	4,540	16,828	15,462	13,898	23,661	21,597	18,438
41 UNIVERSITY OF NEW MEXICO	99	94	88	194	217	222	293	311	310
42 MAYNE STATE UNIVERSITY	98E	98	129	225E	225	272	323E	323	401
43 OREGON HLTH SCIENCES UNIV	96I	91I	76	188I	177I	172	284I	268I	248
44 JOHN F KENNEDY UNIVERSITY	96	69I	59	111	94I	88	207	163I	147
45 SAN FRANCISCO STATE UNIV	95	96	117	139	164	218	234	260	335
46 CALIF ST UNIV FULLERTON	95I	93	48I	182I	176	122I	277I	269	170I
47 SAN DIEGO CITY COLLEGE	92I	86I	5	201I	185I	19	293I	271I	24
48 UNIVERSITY OF COLORADO	90	35	66	365	104	140	455	139	206
49 UNIV OF PENNSYLVANIA	89	217	73	252	599	216	341	816	289
50 HILLSBOROUGH CNTY COLLEGE	88I	83I	65	206I	189I	89	294I	272I	154
TOTAL, 1ST 50 INSTS.	7,771	7,097	5,266	18,891	17,592	15,456	26,662	24,689	20,722

SEE FOOTNOTES AT END OF TABLE.

TABLE B-62. — PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY SEX: JANUARY 1980 AND JANUARY 1983-84

- CONTINUED INSTITUTIONAL RANKING	WOMEN			MEN			TOTAL		
	1984	1983	1980	1984	1983	1980	1984	1983	1980
51 MONTGOMERY COLLEGE	851	791	601	2691	2491	1731	3541	3281	2331
52 UNIV OF WIS-MILWAUKEE	831	56	55	2071	185	103	290	241	158
53 WILLIAM RAINIEY HARPER COL	83	67	49	167	125	95	250	192	144
54 PACE UNIVERSITY	79	691	401	191	1831	1131	270	252	1531
55 TEMPLE UNIVERSITY	76	43	90	220	184	313	296	227	403
56 MAYNE COUNTY CMTY COLLEGE	741	691	52	1201	1111	76	1941	1801	128
57 UNIV OF CAL IRVINE 1/	74	73	221	127	119	751	201	192	97
58 TUFTS UNIVERSITY	731	721	38	3921	3891	234	4651	4611	272
59 SINCLAIR COMMUNITY COL	70	100	24	232	244	117	302	344	141
60 UNIVERSITY OF KANSAS	70	161	641	117	321	2001	187	48	2641
TOTAL, 1ST 60 INSTS.	8,538	7,741	5,762	20,933	19,413	16,955	29,471	27,154	22,717
61 BERGEN COMMUNITY COLLEGE	701	651	47	981	911	63	1681	1561	110
62 PORTLAND COMMUNITY COL	70	75	301	101	102	581	171	177	881
63 PARKLAND COLLEGE	701	51	36	1061	981	34	1761	1631	70
64 NORTHERN VA COMMUNITY COL	68	68	16	297	289	42	365	357	58
65 LAWRENCE INST OF TECH	681	661	541	1511	1431	1081	2191	2091	1621
66 YESHIVA UNIVERSITY	67	511	441	271	2051	1781	338	256E	222
67 HOUSTON COMMUNITY COLLEGE	66	661	331	167	1421	721	233	2081	1051
68 TIDEWATER COMMUNITY COL	66	56	44	96	106	92	162	162	138
69 UNIV OF MD COLLEGE PARK	66	63	64	193	164	163	259	227	229
70 UNIV OF TEXAS AT AUSTIN	65	76	111	174	154	176	239	230	287
TOTAL, 1ST 70 INSTS.	9,214	8,392	6,245	22,587	20,907	17,941	31,801	29,299	24,186
71 JOHNS HOPKINS UNIVERSITY	64	41	24	164	151	141	228	192	165
72 CUNY QUEENS COLLEGE	641	631	54	1231	1191	119	1871	1821	173
73 CORNELL UNIVERSITY	62	72	40	113	102	82	175	174	122
74 ARIZONA STATE UNIVERSITY	61	2	181	180	9	471	241	11	66
75 YOUNGSTOWN ST UNIVERSITY	601	59	34	1351	131	91	1951	190	125
76 LOYOLA UNIV - CHICAGO	59	55	50	235	223	241	294	278	291
77 HOWARD UNIVERSITY	59	94	1651	880	842	3961	939	936	561
78 UNIVERSITY OF OKLAHOMA	59	22	59	72	145	105	131	167	164
79 CUNY HUNTER COLLEGE	58	70	931	98	97	1171	156	167	1701
80 UNIV OF P R-RIO PIEDRAS	57	44	171	65	77	371	122	121	541
TOTAL, 1ST 80 INSTS.	9,817	8,914	6,759	24,652	22,803	19,317	34,469	31,717	26,076
81 IOWA ST U OF SCI & TECH	55	48	45	83	77	73	138	125	118
82 KEAN COL OF NEW JERSEY	551	551	311	1421	1371	641	1971	1921	971
83 UNIVERSITY OF ARIZONA	55	48	29	160	136	135	215	184	164
84 DARTMOUTH COLLEGE	54	42	271	215	210	1281	269	252	1551
85 NEW MEXICO STATE UNIV	54	32	26	94	41	39	148	73	65
86 CALIF STATE UNIV FRESNO	541	491	121	671	681	411	121	117	53
87 OREGON STATE UNIVERSITY	54	53	241	90	101	771	144	154	101
88 SAN JOSE STATE UNIVERSITY	531	52	821	2411	234	2731	2941	286	3551
89 MACOMB COUNTY CMTY COL	52	15	10	122	68	31	174	83	41
90 MICHIGAN STATE UNIVERSITY	501	48	46	561	52	103	1061	100	149
TOTAL, 1ST 90 INSTS.	10,353	9,356	7,071	25,922	23,927	20,283	36,275	33,283	27,374
91 SUNY SUFFOLK CO CMTY COL	501	471	281	1621	1491	671	2121	1961	95
92 U TEX HLTH SCI CTR S ANTO	50	56	271	168	188	1051	218	244	1321
93 MONTANA STATE UNIVERSITY	491	48	121	541	53	391	103E	101	511
94 GEORGE MASON UNIVERSITY	491	47	231	921	86	511	1411	133	741
95 CUNY COL STATEN ISLAND	491	48	61	1281	124	171	1771	172	231
96 CALIF STATE UNIV CHICO	491	471	37	901	881	57	1391	1351	94
97 LONG ISLAND UNIVERSITY	49	301	39	169	1911	109	218	2211	148
98 CALIF ST UNIV NORTHRIDGE	491	48E	51	1391	135E	154	1881	183E	205
99 WRIGHT STATE UNIVERSITY	49	21	9	65	61	72	114	82	81
100 AUBURN UNIVERSITY	48	37	29	57	58	40	105	95	69
TOTAL, 1ST 100 INSTS.	10,844	9,785	7,352	27,046	25,060	20,994	37,890	34,845	28,346
TOTAL, ALL OTHER SAMPLED INSTS.	8,288	12,482	10,091	26,174	37,510	30,822	34,462	49,992	40,913
ESTIMATED TOTAL, NON-SAMPLED INSTS.	5,575	0	0	10,962	0	0	16,537	0	0

1/ THE UNIVERSITY OF CALIFORNIA SYSTEM REPORTED SIGNIFICANT CHANGES IN JANUARY 1984 COMPARED TO PREVIOUS YEARS, AS THE RESULT OF RECLASSIFYING SCIENCE AND ENGINEERING (S/E) AWARDS AND RESTRUCTURING SOME S/E DEPARTMENTS.

2/ DATA REPRESENT COMBINED TOTALS FOR THE UNIVERSITY OF ILLINOIS CHICAGO CIRCLE AND THE UNIVERSITY OF ILLINOIS MEDICAL CENTER.

NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED. DASHES INDICATE THAT DATA ARE NOT AVAILABLE; DASHES FOLLOWED BY "C" INDICATE CONFIDENTIAL DATA.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-63. — FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES
BY FIELD AND SEX: JANUARY 1984

INSTITUTIONAL RANKING	TOTAL, ALL FIELDS		ENGINEERS		PHYSICAL SCIENTISTS		ENVIRON- MENTAL SCIENTISTS		MATH. AND COMPUTER SCIENTISTS		LIFE SCIENTISTS		PSYCHOLOGISTS		SOCIAL SCIENTISTS	
	TOTAL WOMEN	TOTAL WOMEN	TOTAL WOMEN	TOTAL WOMEN	TOTAL WOMEN	TOTAL WOMEN	TOTAL WOMEN	TOTAL WOMEN	TOTAL WOMEN	TOTAL WOMEN	TOTAL WOMEN	TOTAL WOMEN	TOTAL WOMEN	TOTAL WOMEN	TOTAL WOMEN	TOTAL WOMEN
TOTAL, ALL INSTS.	281561	57306	29435	1109	29030	2887	8933	836	31940	5968	122689	33925	17087	4491	42447	8090
1 HARVARD UNIVERSITY	4716	963	43	0	258	19	49	4	57	10	4129	902	38	10	142	18
2 JOHNS HOPKINS UNIVERSITY	3405	540	1033	23	409	28	35	5	228	42	1515	390	27	7	158	45
3 UNIV OF MICHIGAN	3121	763	304	31	201	9	139	24	198	17	1760	536	169	62	300	84
4 UNIVERSITY OF MINNESOTA	2965	529	200	5	148	10	40	1	163	18	1732	368	120	30	562	97
5 LOUISIANA STATE UNIV	2749	728	157	3	139	8	129	24	144	33	2000	623	38	9	140	28
6 MASS INST OF TECHNOLOGY	2704	493	807	64	626	55	154	25	161	16	650	260	79	37	229	36
7 OHIO STATE UNIVERSITY	2537	532	301	13	196	22	42	4	159	15	1490	413	56	13	293	52
8 CORNELL UNIVERSITY	2442	480	305	16	219	16	33	5	68	10	1430	321	116	45	271	67
9 TEXAS A & M UNIVERSITY	2418	169	417	10	105	3	94	6	154	12	1122	62	51	10	475	66
10 UNIVERSITY OF MICHIGAN	2414	530	328	18	263	35	56	3	112	9	1245	348	103	27	307	90
TOTAL, 1ST 10 INSTS.	29473	5727	3895	183	2564	205	821	101	1446	182	17073	4223	797	250	2877	583
11 UNIVERSITY OF FLORIDA	2385	455	239	5	98	2	21	1	73	6	1675	396	43	8	236	37
12 UNIV OF ILL URBANA	2175	369	378	18	252	28	117	19	225	39	776	169	143	41	284	55
13 UNIV OF CAL LOS ANGELES 1/	2133	600	200	25	166	25	84	10	66	6	1350	464	70	18	197	52
14 PENNSYLVANIA STATE UNIV	2125	265	627	25	194	12	88	8	201	41	735	132	74	17	206	30
15 PURDUE UNIVERSITY	2027	275	527	18	246	22	29	1	226	40	690	156	88	20	201	18
16 UNIVERSITY OF PITTSBURGH	1968	561	130	7	158	14	18	1	201	54	1169	406	73	28	219	51
17 COLUMBIA UNIV MAIN DIV	1955	510	103	4	120	8	189	40	61	3	1224	398	18	6	240	51
18 UNIVERSITY OF KENTUCKY	1920	402	161	4	138	22	54	7	156	46	1089	262	76	26	246	35
19 UNIVERSITY OF WASHINGTON	1854	367	264	15	133	7	148	17	98	10	997	270	47	12	167	36
20 YALE UNIVERSITY	1785	444	46	2	133	10	39	0	63	7	1341	403	33	11	130	11
TOTAL, 1ST 20 INSTS.	49800	9975	6570	306	4222	355	1608	205	2816	434	28119	7279	1462	437	5003	959
21 N C STATE UNIV AT RALEIGH	1739	173	324	15	97	10	35	3	144	19	939	93	21	5	179	28
22 MICHIGAN STATE UNIVERSITY	1738	262	127	1	199	16	39	1	133	10	839	161	112	31	289	42
23 UNIVERSITY OF IOWA	1730	354	71	1	103	5	14	1	100	9	1228	302	35	7	179	29
24 INDIANA UNIVERSITY	1703	414	48	4	197	15	110	8	114	12	923	312	112	24	199	39
25 UNIV OF CAL DAVIS 1/	1674	318	78	5	61	4	17	0	49	7	1359	276	20	5	90	21
26 UNIV OF TEXAS AT AUSTIN	1667	261	248	11	401	32	170	22	232	36	209	62	107	28	300	70
27 WASHINGTON UNIVERSITY	1609	339	57	0	83	4	20	2	91	11	1275	314	22	3	61	5
28 UNIV OF CAL BERKELEY 1/	1552	278	344	27	239	30	23	2	84	5	609	145	56	22	197	47
29 UNIV OF PENNSYLVANIA	1551	271	81	4	87	5	5	0	85	9	1041	219	27	7	225	27
30 RUTGERS THE ST UNIV OF NJ	1507	301	117	8	168	26	61	4	217	26	411	76	128	40	405	121
TOTAL, 1ST 30 INSTS.	66270	12946	8065	382	5857	502	2102	248	4065	578	36952	9239	2102	609	7127	1388
31 DUKE UNIVERSITY	1503	320	50	3	77	5	39	9	42	3	1160	273	25	5	110	22
32 UNIVERSITY OF ARIZONA	1493	243	169	3	208	13	102	5	109	12	635	158	81	22	189	30
33 UNIVERSITY OF KANSAS	1452	476	121	3	69	8	66	10	59	9	813	327	161	83	163	36
34 UNIV OF CAL SAN FRANCISCO 1/	1450	539	0	0	0	0	0	0	0	0	1450	539	0	0	0	0
35 IOWA ST U OF SCI & TECH	1392	188	356	35	94	11	17	0	154	23	582	94	25	3	164	22
36 NEW YORK UNIVERSITY	1391	262	24	0	76	4	0	0	150	11	878	184	79	23	184	40
37 UNIV OF NC AT CHAPEL HILL	1358	248	39	1	87	5	24	1	55	1	956	196	49	12	146	32
38 UNIV OF MD COLLEGE PARK	1352	219	214	9	336	37	31	4	173	22	336	83	66	22	196	42
39 UNIV OF SOUTHERN CAL	1332	210	157	7	86	8	30	1	56	4	876	168	40	4	87	18
40 CASE WESTERN RESERVE UNIV	1326	275	125	5	76	3	8	1	39	2	1035	254	13	3	30	7
TOTAL, 1ST 40 INSTS.	80319	15926	9320	448	6966	596	2419	279	4902	665	45673	11515	2641	786	8398	1637
41 UNIVERSITY OF CINCINNATI	1317	252	140	17	66	1	13	2	93	15	843	190	29	5	133	22
42 UNIV OF CAL SAN DIEGO 1/	1301	289	28	3	146	15	330	66	73	5	627	180	29	8	68	12
43 UNIVERSITY OF CONNECTICUT	1271	296	122	6	60	5	33	4	63	7	687	181	103	30	203	63
44 UNIVERSITY OF CHICAGO	1258	235	46	1	171	12	41	2	64	3	771	191	45	14	120	12
45 NORTHWESTERN UNIVERSITY	1250	210	152	6	144	10	18	1	104	5	639	169	50	0	143	19
46 UNIV OF MISSOURI COLUMBIA	1231	247	110	3	48	4	29	2	53	7	820	195	41	12	130	24
47 UNIVERSITY OF UTAH	1230	249	139	11	126	2	30	3	89	6	695	193	29	7	122	27
48 NEW MEXICO STATE UNIV	1214	204	258	5	86	8	15	0	192	40	385	60	77	25	201	66
49 UNIVERSITY OF MIAMI	1187	231	70	1	35	0	103	5	50	5	848	212	37	5	44	3
50 SUNY AT STONY BROOK	1164	253	64	5	189	15	57	6	92	12	584	171	57	15	121	29
TOTAL, 1ST 50 INSTS.	92742	18392	10449	506	8037	668	3088	370	5775	770	52572	13257	3138	907	9683	1914
TOTAL, ALL OTHER SAMPLED INSTS.	146184	29251	16243	551	14776	1424	4680	395	17394	3293	60425	16707	9600	2435	23066	4446
ESTIMATED TOTAL, NON-SAMPLED INSTS.	42635	9663	2743	52	6217	795	1165	71	8771	1905	9692	3961	4349	1149	9698	1730

1/ THE UNIVERSITY OF CALIFORNIA SYSTEM REPORTED SIGNIFICANT CHANGES IN JANUARY 1984 COMPARED TO PREVIOUS YEARS, AS THE RESULT OF RECLASSIFYING SCIENCE AND ENGINEERING (S/E) AWARDS AND RESTRUCTURING SOME S/E DEPARTMENTS.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-64. — PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES
BY FIELD AND SEX: JANUARY 1984

INSTITUTIONAL RANKING	TOTAL, ALL FIELDS		ENGINEERS		PHYSICAL SCIENTISTS		ENVIRON- MENTAL SCIENTISTS		MATH. AND COMPUTER SCIENTISTS		LIFE SCIENTISTS		PSYCHOLOGISTS		SOCIAL SCIENTISTS	
	TOTAL WOMEN	TOTAL MEN	TOTAL WOMEN	TOTAL MEN	TOTAL WOMEN	TOTAL MEN	TOTAL WOMEN	TOTAL MEN	TOTAL WOMEN	TOTAL MEN	TOTAL WOMEN	TOTAL MEN	TOTAL WOMEN	TOTAL MEN	TOTAL WOMEN	TOTAL MEN
TOTAL, ALL INSTS.	88889	24707	9580	500	6491	1413	1691	431	17342	5121	33590	10637	6880	2841	13315	3764
1 HARVARD UNIVERSITY	2369	452	6	1	15	4	5	2	17	1	2286	437	6	2	34	5
2 OHIO STATE UNIVERSITY	2049	412	49	6	30	8	8	1	54	11	1761	344	19	3	118	39
3 CMY COL ALLEGHENY COUNTY	1304	385	137	1	204	53	0	0	357	107	230	83	195	85	181	54
4 HOWARD UNIVERSITY	939	59	31	5	9	1	0	0	5	1	867	48	1	1	26	3
5 UNIV OF CAL LOS ANGELES 1/	839	301	95	13	50	12	15	3	10	1	582	231	19	10	68	31
6 UNIV OF CAL SAN FRANCISCO 1/	824	301	0	0	0	0	0	0	0	0	826	301	0	0	0	0
7 NORTHEASTERN UNIVERSITY	816	174	127	4	121	18	11	0	223	27	129	64	61	15	144	44
8 UNIV OF CAL BERKELEY 1/	800	249	192	42	180	30	8	2	28	9	261	110	45	26	86	30
9 INDIANA UNIVERSITY	780	240	58	12	45	9	43	8	86	29	424	141	43	17	81	24
10 UNIV OF WIS-MADISON	709	304	80	16	33	7	31	13	29	11	423	198	31	19	82	40
TOTAL, 1ST 10 INSTS.	11433	2877	775	100	689	142	121	29	819	197	7789	1957	420	178	820	274
11 NEW YORK UNIVERSITY	656	136	8	1	12	5	3	2	40	9	409	53	72	31	112	35
12 UNIVERSITY OF MICHIGAN	643	184	82	7	25	8	12	5	8	2	426	118	27	15	63	31
13 PHILA COL OSTEOPATHIC MED	601	14	0	0	0	0	0	0	0	0	601	14	0	0	0	0
14 GEORGE WASHINGTON UNIV	580	129	113	0	28	5	14	5	64	5	257	73	27	15	73	26
15 UNIVERSITY OF WASHINGTON	557	202	45	7	22	2	23	7	18	4	378	154	16	9	55	17
16 INTER AM U PR-SAN GERMAN	537	197	2	1	53	10	3	0	110	27	138	78	84	39	145	42
17 LOUISIANA STATE UNIV	533	140	14	0	10	3	10	5	23	10	454	114	9	5	11	3
18 UNIV OF CAL DAVID 1/	523	213	31	2	17	4	1	1	13	4	430	138	6	3	25	11
19 BOSTON UNIVERSITY	510	151	47	3	22	3	7	2	119	10	154	63	24	9	137	65
20 UNIV OF MD BALT PROF SCH	505	143	0	0	0	0	0	0	0	3	484	128	0	0	16	12
TOTAL, 1ST 20 INSTS.	17078	4388	1117	121	878	182	196	56	1221	271	11522	2942	687	300	1457	516
21 UNIVERSITY OF UTAH	494	117	111	16	98	17	25	6	33	1	176	58	16	4	35	11
22 UNIV OF SOUTHERN CAL	485	107	87	4	13	1	18	3	11	1	282	79	19	2	55	17
23 UNIVERSITY OF MINNESOTA	475	115	50	4	7	2	4	3	17	0	335	74	7	4	55	26
24 CUYAHOGA CNTY COL DIST	470	118	68	0	43	9	1	0	154	42	42	15	58	25	104	27
25 TUFTS UNIVERSITY	465	73	14	1	3	1	0	0	9	3	420	62	4	3	15	3
26 UNIVERSITY OF COLORADO	455	90	56	4	170	24	75	15	11	1	88	28	28	11	27	5
27 COLUMBIA UNIV MAIN DIV	430	120	24	1	13	2	4	1	11	0	287	91	1	0	90	25
28 ST LOUIS COMMUNITY COL	415	112	73	2	35	10	3	0	144	29	89	51	22	7	47	13
29 MASS INST OF TECHNOLOGY	408	112	113	22	42	8	22	10	24	4	101	37	33	15	73	16
30 UNIV OF CAL SAN DIEGO 1/	397	130	5	0	50	10	56	17	22	1	241	94	7	4	16	4
TOTAL, 1ST 30 INSTS.	21572	5482	1718	175	1352	268	404	111	1659	357	13583	3533	882	375	1974	663
31 FAIRLEIGH DICKINSON UNIV	391	46	49	2	29	7	3	0	48	11	203	18	25	7	34	1
32 PURDUE UNIVERSITY	389	113	99	4	25	5	0	0	102	37	98	57	20	7	45	3
33 CALIF ST UNIV LONG BEACH	384	120	92	7	46	11	11	3	50	18	79	54	24	8	84	19
34 U TEX HLTH SCI CTR DALLAS	379	122	0	0	0	0	0	0	3	1	368	119	8	2	0	0
35 UNIVERSITY OF PITTSBURGH	378	126	24	0	11	1	1	0	71	24	199	71	16	10	54	20
36 UNIVERSITY OF KENTUCKY	364	122	29	1	15	4	3	0	72	27	164	58	40	14	43	18
37 WASHINGTON STATE UNIV	366	29	12	1	12	0	4	0	13	0	298	27	9	0	18	1
38 NORTHERN VA COMMUNITY COL	365	68	75	1	24	4	4	1	163	19	47	21	28	16	24	6
39 INTER AM U PR-CTRL OFF	357	109	19	1	33	3	2	1	94	20	74	29	54	30	81	25
40 MONTGOMERY COLLEGE	354	85	23	0	38	5	1	0	71	20	27	10	43	13	151	32
TOTAL, 1ST 40 INSTS.	25303	6422	2140	192	1585	308	433	116	2346	534	15140	3997	1149	487	2510	788
41 UNIV OF PENNSYLVANIA	341	89	35	5	17	1	2	1	15	2	248	73	7	4	17	3
42 SUNY AT BUFFALO	340	47	21	3	7	0	0	0	0	0	299	40	3	1	10	3
43 YESHIVA UNIVERSITY	338	67	0	0	1	0	0	0	5	2	249	37	51	20	32	8
44 UNIVERSITY OF IOWA	330	126	9	1	4	1	0	0	8	3	273	108	5	3	31	10
45 UNIV OF ILL CHICAGO 2/	330	102	8	1	8	2	2	0	8	4	265	74	10	5	29	14
46 SUNY NASSAU CNTY COLLEGE	323	44	22	0	55	3	0	0	141	19	56	17	21	4	28	1
47 WAYNE STATE UNIVERSITY	323	98	38	11	25	7	1	1	34	11	138	42	30	9	57	17
48 UNIV OF HAMAMT-HANOI	310	104	8	0	8	2	6	0	13	5	219	70	7	2	49	25
49 SINCLAIR COMMUNITY COL	302	70	47	1	13	0	5	1	89	20	42	29	19	8	87	11
50 PENNSYLVANIA STATE UNIV	302	103	62	4	46	11	2	1	86	36	77	41	6	1	23	9
TOTAL, 1ST 50 INSTS.	28542	7272	2390	218	1769	335	451	120	2745	636	17006	4530	1308	544	2873	889
TOTAL, ALL OTHER SAMPLED INSTS.	43810	11860	5375	246	3234	679	944	219	9209	2547	13913	4568	3808	1585	7327	2016
ESTIMATED TOTAL, NON-SAMPLED INSTS.	16537	5575	1815	36	1488	399	296	92	5388	1938	2671	1539	1764	712	3115	559

- 1/ THE UNIVERSITY OF CALIFORNIA SYSTEM REPORTED SIGNIFICANT CHANGES IN JANUARY 1984 COMPARED TO PREVIOUS YEARS, AS THE RESULT OF RECLASSIFYING SCIENCE AND ENGINEERING (S/E) AWARDS AND RESTRUCTURING SOME S/E DEPARTMENTS.
2/ DATA REPRESENT COMBINED TOTALS FOR THE UNIVERSITY OF ILLINOIS CHICAGO CIRCLE AND THE UNIVERSITY OF ILLINOIS MEDICAL CENTER.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-65. -- FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT PUBLIC UNIVERSITIES AND COLLEGES BY FIELD AND SEX: JANUARY 1984

INSTITUTIONAL RANKING	TOTAL, ALL FIELDS		ENGINEERS		PHYSICAL SCIENTISTS		ENVIRONMENTAL SCIENTISTS		MATH. AND COMPUTER SCIENTISTS		LIFE SCIENTISTS		PSYCHOLOGISTS		SOCIAL SCIENTISTS	
	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN
TOTAL, ALL INSTS.	196754	40023	21996	845	19066	1781	7102	647	23931	4551	82457	23301	11797	3156	30405	5742
1 UNIV OF WIS-MADISON	3121	763	304	31	201	9	189	24	198	17	1760	536	169	62	300	84
2 UNIVERSITY OF MINNESOTA	2965	529	200	5	148	10	40	1	163	18	1732	368	120	30	562	97
3 LOUISIANA STATE UNIV	2749	728	157	3	139	8	129	24	146	33	2000	623	38	9	140	28
4 OHIO STATE UNIVERSITY	2537	532	301	13	196	22	42	4	159	15	1490	413	56	13	293	52
5 TEXAS A & M UNIVERSITY	2418	169	417	10	105	3	94	6	154	12	1122	62	51	10	475	66
6 UNIVERSITY OF MICHIGAN	2414	530	328	18	263	35	56	3	112	9	1245	348	103	27	307	90
7 UNIVERSITY OF FLORIDA	2385	455	239	5	98	2	21	1	73	6	1675	396	43	8	236	37
8 UNIV OF ILL URBANA	2175	369	378	18	252	28	117	19	225	39	776	169	143	41	284	55
9 UNIV OF CAL LOS ANGELES 1/	2133	600	200	25	166	25	84	10	66	6	1350	444	70	18	197	52
10 PENNSYLVANIA STATE UNIV	2125	265	627	25	194	12	88	8	201	41	735	132	74	17	206	30
TOTAL, 1ST 10 INSTS.	25022	4940	3151	153	1762	154	860	100	1497	196	13885	3511	867	235	3000	591
11 PURDUE UNIVERSITY	2027	275	527	18	266	22	29	1	226	40	690	156	88	20	201	18
12 UNIVERSITY OF PITTSBURGH	1968	561	130	7	158	14	18	1	201	54	1169	406	73	28	219	51
13 UNIVERSITY OF KENTUCKY	1920	402	161	4	138	22	54	7	156	46	1089	262	76	26	246	35
14 UNIVERSITY OF WASHINGTON	1854	367	264	15	133	7	148	17	98	10	997	270	47	12	167	36
15 N C STATE UNIV AT RALEIGH	1739	173	324	15	97	10	35	3	144	19	939	93	21	5	179	28
16 MICHIGAN STATE UNIVERSITY	1738	262	127	1	199	14	39	1	133	10	839	161	112	31	289	42
17 UNIVERSITY OF IOWA	1730	354	71	1	103	5	14	1	100	9	1228	302	35	7	179	29
18 INDIANA UNIVERSITY	1703	414	48	4	197	15	110	8	114	12	923	312	112	24	199	39
19 UNIV OF CAL DAVIS 1/	1674	318	78	5	61	4	17	0	49	7	1359	274	20	5	90	21
20 UNIV OF TEXAS AT AUSTIN	1667	261	248	11	401	32	170	22	232	36	209	62	107	28	300	70
TOTAL, 1ST 20 INSTS.	43042	8327	5129	234	3515	301	1494	161	2950	439	23327	5811	1558	421	5069	960
21 UNIV OF CAL BERKELEY 1/	1552	278	344	27	239	30	23	2	84	5	609	145	56	22	197	47
22 RUTGERS THE ST UNIV OF NJ	1507	301	117	8	168	26	61	4	217	26	411	76	128	40	405	121
23 UNIVERSITY OF ARIZONA	1493	243	169	3	208	13	102	5	109	12	635	158	81	22	189	30
24 UNIVERSITY OF KANSAS	1452	476	121	3	69	8	66	10	59	9	813	327	161	83	163	36
25 UNIV OF CAL SAN FRANCISCO 1/	1450	539	0	0	0	0	0	0	0	0	1450	539	0	0	0	0
26 IOWA ST U OF SCI & TECH	1392	188	356	35	94	11	17	0	154	23	582	94	25	3	164	22
27 UNIV OF NC AT CHAPEL HILL	1358	248	39	1	87	5	24	1	55	1	956	196	49	12	148	32
28 UNIV OF MD COLLEGE PARK	1352	219	214	9	336	37	31	4	173	22	336	83	66	22	196	42
29 UNIVERSITY OF CINCINNATI	1317	252	140	17	66	1	13	2	93	15	843	190	29	5	133	22
30 UNIV OF CAL SAN DIEGO 1/	1301	289	28	3	146	15	330	66	73	5	627	180	29	8	68	12
TOTAL, 1ST 30 INSTS.	57216	11360	6657	340	4928	447	2161	255	3967	557	30589	7799	2182	638	6732	1324
31 UNIVERSITY OF CONNECTICUT	1271	296	122	6	60	5	33	4	63	7	687	181	103	30	203	63
32 UNIV OF MISSOURI COLUMBIA	1231	247	110	3	48	4	29	2	53	7	820	195	41	12	130	24
33 UNIVERSITY OF UTAH	1230	249	139	11	126	2	30	3	89	6	695	193	29	7	122	27
34 NEW MEXICO STATE UNIV	1214	204	258	5	86	8	15	0	192	40	385	60	77	25	201	64
35 SUNY AT STONY BROOK	1164	253	64	5	189	15	57	6	92	12	584	171	57	15	121	29
36 UNIV OF ILL CHICAGO 2/	1163	323	92	0	96	10	16	1	89	12	684	254	38	6	148	40
37 UNIVERSITY OF GEORGIA	1139	110	31	1	74	3	49	5	89	13	664	61	64	7	168	20
38 UNIV ALABAMA BIRMINGHAM	1133	176	28	2	32	0	9	0	34	4	954	158	40	5	36	7
39 GEORGIA INSTITUTE OF TECH	1130	63	686	26	174	6	34	0	134	23	24	1	14	1	64	6
40 UNIVERSITY OF OKLAHOMA	1082	199	161	7	95	12	51	4	47	7	574	138	28	5	126	26
TOTAL, 1ST 40 INSTS.	68973	13480	8348	406	5908	512	2484	280	4849	688	36660	9211	2673	751	8051	1632
41 KANS ST U - AG & APP SCI	1074	149	176	22	55	1	10	0	64	3	612	92	18	1	139	30
42 UNIVERSITY OF VIRGINIA	1067	184	131	4	120	8	39	0	85	13	570	139	33	10	89	10
43 VA POLYTECH INST & ST U	1062	70	309	7	77	0	34	3	97	14	419	30	23	4	103	12
44 TEMPLE UNIVERSITY	1051	222	32	1	50	0	8	0	93	12	619	151	75	18	174	40
45 WAYNE STATE UNIVERSITY	1050	300	64	22	79	19	7	1	82	23	654	195	36	6	128	34
46 WEST VIRGINIA UNIVERSITY	1050	203	106	3	33	1	17	0	55	9	364	64	20	5	455	119
47 OREGON STATE UNIVERSITY	1049	119	137	1	98	8	140	9	76	8	504	74	10	3	84	14
48 UNIV OF HAWAII-MANOA	1045	227	61	1	94	6	106	13	57	2	520	166	33	8	174	31
49 AUBURN UNIVERSITY	1035	118	214	4	62	5	9	1	101	18	472	64	38	11	139	15
50 COLORADO STATE UNIVERSITY	1007	119	156	8	57	5	69	7	96	6	468	66	39	11	122	16
TOTAL, 1ST 50 INSTS.	79463	15191	9734	479	6633	565	2923	314	5655	796	41862	10256	2998	828	9658	1953
TOTAL, ALL OTHER SAMPLED INSTS.	90514	18918	9963	319	8968	864	3337	282	12418	2472	34251	10425	6302	1673	15275	2883
ESTIMATED TOTAL, NON-SAMPLED INSTS.	26777	5914	2299	47	3465	352	842	51	5858	1283	6344	2620	2497	655	5472	906

1/ THE UNIVERSITY OF CALIFORNIA SYSTEM REPORTED SIGNIFICANT CHANGES IN JANUARY 1984 COMPARED TO PREVIOUS YEARS, AS THE RESULT OF RECLASSIFYING SCIENCE AND ENGINEERING (S/E) AMARDS AND RESTRUCTURING SOME S/E DEPARTMENTS.
2/ DATA REPRESENT COMBINED TOTALS FOR THE UNIVERSITY OF ILLINOIS CHICAGO CIRCLE AND THE UNIVERSITY OF ILLINOIS MEDICAL CENTER.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-66. — PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT PUBLIC UNIVERSITIES AND COLLEGES
BY FIELD AND SEX: JANUARY 1984

INSTITUTIONAL RANKING	TOTAL, ALL FIELDS		ENGINEERS		PHYSICAL SCIENTISTS		ENVIRON- MENTAL SCIENTISTS		MATH. AND COMPUTER SCIENTISTS		LIFE SCIENTISTS		PSYCHOLOGISTS		SOCIAL SCIENTISTS	
	TOTAL WOMEN	TOTAL MEN	TOTAL WOMEN	TOTAL MEN	TOTAL WOMEN	TOTAL MEN	TOTAL WOMEN	TOTAL MEN	TOTAL WOMEN	TOTAL MEN	TOTAL WOMEN	TOTAL MEN	TOTAL WOMEN	TOTAL MEN	TOTAL WOMEN	TOTAL MEN
TOTAL, ALL INSTS.	58070	17147	6568	378	4630	984	1322	334	12312	3817	20725	7445	4117	1777	8394	2412
1 OHIO STATE UNIVERSITY	2049	412	49	6	30	8	8	1	64	11	1761	344	19	3	118	39
2 CMY COL ALLEGHENY COUNTY	1306	385	137	1	206	53	0	0	357	107	230	83	195	85	181	56
3 UNIV OF CAL LOS ANGELES 1/	839	301	95	13	50	12	15	3	10	1	582	231	19	10	68	31
4 UNIV OF CAL SAN FRANCISCO 1/	826	301	0	0	0	0	0	0	0	0	826	301	0	0	0	0
5 UNIV OF CAL BERKELEY 1/	800	249	192	42	180	30	8	2	28	9	261	110	45	26	86	30
6 INDIANA UNIVERSITY	780	240	58	12	45	9	43	8	86	29	424	141	43	17	81	24
7 UNIV OF WIS-MADISON	709	304	80	16	33	7	31	13	29	11	423	198	31	19	82	40
8 UNIVERSITY OF MICHIGAN	643	186	82	7	25	8	12	5	8	2	426	118	27	15	63	31
9 UNIVERSITY OF WASHINGTON	557	202	45	7	22	2	23	7	18	4	378	156	16	9	55	17
10 LOUISIANA STATE UNIV	533	140	14	0	10	3	10	5	23	10	456	114	9	5	11	3
TOTAL, 1ST 10 INSTS.	9042	2720	752	104	601	132	150	44	623	184	5767	1796	404	189	745	271
11 UNIV OF CAL DAVIS 1/	523	213	31	2	17	4	1	1	13	4	430	188	6	3	25	11
12 UNIV OF MD BALT PROF SCH	505	143	0	0	0	0	0	0	5	3	484	128	0	0	16	12
13 UNIVERSITY OF UTAH	494	117	111	16	98	17	25	4	33	5	176	58	16	4	35	11
14 UNIVERSITY OF MINNESOTA	475	115	90	4	7	2	4	3	17	0	335	76	7	4	55	26
15 CUYAHOGA CNTY COL DIST	470	118	68	4	43	9	1	0	154	42	42	15	58	25	104	27
16 UNIVERSITY OF COLORADO	455	90	54	4	170	26	75	15	11	1	58	28	28	11	27	5
17 ST LOUIS COMMUNITY COL	415	112	73	2	35	10	3	0	146	29	89	51	22	7	47	13
18 UNIV OF CAL SAN DIEGO 1/	397	130	5	0	50	10	56	17	22	1	241	94	7	4	16	4
19 PURDUE UNIVERSITY	389	113	99	4	25	5	0	0	102	37	98	57	20	7	45	3
20 CALIF ST UNIV LONG BEACH	386	120	92	7	46	11	11	3	50	18	19	54	24	8	84	19
TOTAL, 1ST 20 INSTS.	13551	3991	1337	143	1092	226	326	89	1176	324	7829	2545	592	262	1199	402
21 U TEX HLTH SCI CTR DALLAS	379	122	0	0	0	0	0	0	3	1	368	119	8	2	0	0
22 UNIVERSITY OF PITTSBURGH	378	126	24	0	11	1	1	0	71	24	199	71	16	10	56	20
23 UNIVERSITY OF KENTUCKY	366	122	29	1	15	4	3	0	72	27	164	58	40	14	43	18
24 WASHINGTON STATE UNIV	366	29	12	1	12	0	4	0	13	0	298	27	9	0	18	1
25 NORTHERN VA COMMUNITY COL	365	68	75	1	24	4	4	1	163	19	47	21	28	16	24	6
26 MONTGOMERY COLLEGE	354	85	23	0	38	5	1	0	71	20	27	10	43	18	151	32
27 SUNY AT BUFFALO	340	47	21	3	7	0	0	0	0	0	299	40	3	1	10	3
28 UNIVERSITY OF IOWA	330	126	9	1	4	1	0	0	8	3	273	108	5	3	31	10
29 UNIV OF ILL CHICAGO 2/	330	102	8	1	8	2	2	0	8	4	265	76	10	5	29	14
30 SUNY NASSAU CNTY COLLEGE	323	44	22	0	55	3	0	0	141	19	56	17	21	4	28	1
TOTAL, 1ST 30 INSTS.	17082	4862	1560	151	1266	246	341	90	1726	441	9825	3092	775	335	1589	507
31 WAYNE STATE UNIVERSITY	323	98	38	11	25	7	1	1	34	11	138	42	30	9	57	17
32 UNIV OF HAWAII-MANOA	310	104	8	0	8	2	6	0	13	5	219	70	7	2	49	25
33 PENNSYLVANIA STATE UNIV	302	103	62	4	46	11	2	1	86	36	77	41	6	1	23	9
34 SINCLAIR COMMUNITY COL	302	70	47	1	13	0	5	1	89	20	42	29	19	8	87	11
35 TEMPLE UNIVERSITY	296	76	21	1	14	4	1	1	41	10	127	28	27	14	65	18
36 SAN JOSE STATE UNIVERSITY	294	53	100	2	28	7	19	0	56	14	16	6	9	4	66	20
37 HILLSBOROUGH CNTY COLLEGE	294	88	8	0	16	3	0	0	52	23	52	32	42	20	124	10
38 UNIVERSITY OF NEW MEXICO	293	99	71	8	37	9	17	2	23	9	128	65	3	1	14	5
39 SAN DIEGO CITY COLLEGE	293	92	32	10	24	2	9	1	77	7	62	43	44	21	45	8
40 UNIV OF WIS-MILWAUKEE	290	83	45	4	26	1	27	2	39	13	70	37	19	6	64	20
TOTAL, 1ST 40 INSTS.	20079	5728	1992	192	1503	292	428	99	2236	589	10756	3485	981	421	2183	650
41 UNIVERSITY OF CONNECTICUT	290	120	24	5	13	3	5	1	38	9	129	59	32	15	49	28
42 OREGON HLTH SCIENCES UNIV	284	94	0	0	0	0	0	0	0	0	280	96	4	0	0	0
43 CALIF ST UNIV FULLERTON	277	95	50	1	30	6	10	4	59	11	37	19	53	38	38	16
44 UNIV OF ILL URBANA	272	109	45	6	19	7	29	8	16	6	117	56	21	13	25	13
45 UNIV OF MD COLLEGE PARK	259	66	84	4	37	9	14	2	33	12	27	13	6	5	56	21
46 UNIV OF NED & DENT OF N J	247	26	1	0	0	0	0	0	0	0	232	22	14	4	0	0
47 ARIZONA STATE UNIVERSITY	241	61	77	3	5	1	13	1	11	4	61	27	31	10	43	15
48 UNIV OF TEXAS AT AUSTIN	239	65	49	3	47	2	3	1	13	2	56	25	34	18	37	14
49 SAN FRANCISCO STATE UNIV	234	95	17	3	41	12	7	4	35	9	55	34	19	9	60	24
50 HOUSTON COMMUNITY COLLEGE	233	66	0	0	10	6	3	0	120	31	19	5	21	11	60	13
TOTAL, 1ST 50 INSTS.	22655	6527	2341	217	1705	338	512	120	2561	673	11769	3841	1216	544	2551	794
TOTAL, ALL OTHER SAMPLED INSTS.	25806	7272	3194	143	2112	435	619	150	6339	1854	7285	2639	1954	813	4303	1238
ESTIMATED TOTAL NON-SAMPLED INSTS.	9609	3348	1033	18	813	211	191	64	3412	1290	1671	965	947	420	1542	380

1/ THE UNIVERSITY OF CALIFORNIA SYSTEM REPORTED SIGNIFICANT CHANGES IN JANUARY 1984 COMPARED TO PREVIOUS YEARS, AS THE RESULT OF RECLASSIFYING SCIENCE AND ENGINEERING (S/E) AWARDS AND RESTRUCTURING SOME S/E DEPARTMENTS.
2/ DATA REPRESENT COMBINED TOTALS FOR THE UNIVERSITY OF ILLINOIS CHICAGO CIRCLE AND THE UNIVERSITY OF ILLINOIS MEDICAL CENTER.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-67. — FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT PRIVATE UNIVERSITIES AND COLLEGES
BY FIELD AND SEX: JANUARY 1984

INSTITUTIONAL RANKING	TOTAL, ALL FIELDS		ENGINEERS		PHYSICAL SCIENTISTS		ENVIRON- MENTAL SCIENTISTS		MATH. AND COMPUTER SCIENTISTS		LIFE SCIENTISTS		PSYCHOLOGISTS		SOCIAL SCIENTISTS	
	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN
TOTAL, ALL INSTS.	84807	17283	7439	264	9964	1106	1831	189	8009	1417	40232	10624	5290	1335	12042	2348
1 HARVARD UNIVERSITY	4716	963	43	0	258	19	49	4	57	10	4129	902	38	10	142	18
2 JOHNS HOPKINS UNIVERSITY	3405	540	1033	23	409	28	35	5	228	42	1515	390	27	7	158	45
3 MASS INST OF TECHNOLOGY	2706	493	807	64	626	55	154	25	161	16	650	260	79	37	229	36
4 CORNELL UNIVERSITY	2442	480	305	16	219	16	33	5	68	10	1430	321	116	45	271	67
5 COLUMBIA UNIV MAIN DIV	1955	510	103	4	120	8	189	40	61	3	1224	398	18	6	240	51
6 YALE UNIVERSITY	1785	444	46	2	133	10	39	0	63	7	1341	403	33	11	130	11
7 WASHINGTON UNIVERSITY	1609	339	57	0	83	4	20	2	91	11	1275	314	22	3	61	5
8 UNIV OF PENNSYLVANIA	1551	271	81	4	87	5	5	0	85	9	1041	219	27	7	225	27
9 DUKE UNIVERSITY	1503	320	50	3	77	5	39	9	42	3	1160	273	25	5	110	22
10 NEW YORK UNIVERSITY	1391	262	24	0	76	4	0	0	150	11	878	184	79	23	184	40
TOTAL, 1ST 10 INSTS.	23063	4622	2549	116	2088	154	563	90	1006	122	14643	3644	444	154	1750	322
11 UNIV OF SOUTHERN CAL	1332	210	157	7	86	8	30	1	56	4	876	168	40	4	87	18
12 CASE WESTERN RESERVE UNIV	1226	275	125	5	76	3	8	1	39	2	1035	254	13	3	30	7
13 UNIVERSITY OF CHICAGO	1258	235	46	1	171	12	41	2	44	3	771	191	45	14	120	12
14 NORTHWESTERN UNIVERSITY	1250	210	152	6	144	10	18	1	104	5	639	149	50	0	143	19
15 UNIVERSITY OF MIAMI	1187	231	70	1	35	0	103	5	50	5	848	212	37	5	44	3
16 HOWARD UNIVERSITY	1154	256	103	17	41	5	6	1	27	1	807	185	18	3	152	44
17 UNIVERSITY OF ROCHESTER	1132	173	43	1	149	6	7	0	44	2	786	152	36	5	67	7
18 STANFORD UNIVERSITY	1056	126	254	13	134	7	36	2	93	8	427	74	26	7	86	15
19 CUNY MT SINAI SCH OF MED	963	242	6	0	8	1	0	0	2	0	945	241	2	0	0	0
20 GEORGETOWN UNIVERSITY	885	242	0	0	27	1	0	0	13	1	748	220	12	2	85	18
TOTAL, 1ST 20 INSTS.	34636	6822	3505	167	2959	207	812	103	1498	153	22525	5530	743	197	2564	465
21 VANDERBILT UNIVERSITY	877	118	56	3	59	3	9	2	50	3	567	87	68	15	68	5
22 BOSTON UNIVERSITY	869	213	48	4	76	7	5	0	38	5	562	156	32	12	108	27
23 YESHIVA UNIVERSITY	860	197	5	0	59	12	0	0	14	4	681	149	48	18	53	14
24 BAYLOR COL OF MEDICINE	860	185	0	0	0	0	0	0	0	0	860	185	0	0	0	0
25 EMORY UNIVERSITY	835	137	92	5	83	4	16	1	49	3	464	99	36	11	95	14
26 NORTHEASTERN UNIVERSITY	703	199	158	4	101	14	11	0	61	14	234	130	34	8	104	27
27 GEORGE WASHINGTON UNIV	658	136	67	0	36	3	6	0	69	12	360	93	31	11	89	17
28 NEW YORK MEDICAL COLLEGE	621	158	0	0	0	0	0	0	0	0	621	158	0	0	0	0
29 SYRACUSE UNIVERSITY	559	123	93	2	110	11	12	1	77	13	111	65	35	2	121	29
30	-	-	20	0	47	15	0	0	14	7	455	167	0	0	0	0
TOTAL, 1ST 30 INSTS.	41984	8477	4044	189	3530	276	871	107	1870	214	27440	6819	1027	274	3202	598
31 TULANE UNIVERSITY	536	59	38	1	21	0	8	2	42	3	328	40	24	3	75	10
32 CALIFORNIA INST OF TECH	521	40	127	0	224	12	55	5	23	2	71	20	0	0	21	1
33 ST LOUIS UNIVERSITY	517	85	15	0	15	1	17	0	9	1	407	75	16	3	38	5
34 BRIGHAM YOUNG UNIVERSITY	514	59	84	0	58	1	21	1	71	3	140	39	43	6	97	9
35 WAKE FOREST UNIVERSITY	492	53	2	0	25	1	0	0	20	2	392	38	18	5	35	7
36 PRINCETON UNIVERSITY	492	67	90	7	136	12	47	7	48	3	45	16	21	3	105	19
37 ROCKEFELLER UNIVERSITY	465	93	0	0	35	1	0	0	8	0	375	79	47	13	0	0
38 LOMA LINDA UNIVERSITY	458	100	51	0	47	11	9	0	27	7	254	74	20	3	50	5
39 CARNEGIE-MELLON UNIV	454	44	156	5	73	5	0	0	119	7	58	25	0	0	48	2
40 THOMAS JEFFERSON UNIV	445	121	0	0	0	0	0	0	1	0	436	120	8	1	0	0
TOTAL, 1ST 40 INSTS.	46878	9198	4607	202	4164	320	1028	122	2238	242	29946	7345	1224	311	3671	656
41 LOYOLA UNIV - CHICAGO	399	66	0	0	28	2	0	0	19	3	267	46	31	4	54	11
42 RENSSELAER POLYTECH INST	396	28	207	5	75	6	9	0	66	9	14	3	10	3	15	2
43 FIELDING INSTITUTE	390	0	0	0	0	0	0	0	0	0	0	0	390	0	0	0
44 RUSH UNIVERSITY	387	58	0	0	0	0	0	0	0	0	368	46	19	12	0	0
45 UNIVERSITY OF NOTRE DAME	376	38	72	1	118	13	8	1	41	4	38	5	24	3	75	11
46 BROWN UNIVERSITY	376	49	45	1	44	5	21	2	63	4	89	22	21	2	73	13
47 TUFTS UNIVERSITY	357	58	40	3	35	2	4	0	14	0	201	37	18	5	43	11
48 DARTMOUTH COLLEGE	353	55	31	1	33	1	9	2	28	0	181	38	21	4	50	9
49 BRANDEIS UNIVERSITY	345	77	0	0	72	6	0	0	30	2	104	38	29	8	110	23
50 UNIVERSITY OF DAYTON	327	23	119	1	88	5	5	1	47	5	20	4	20	3	28	4
TOTAL, 1ST 50 INSTS.	50584	9650	5121	214	4677	360	1084	128	2548	269	31228	7584	1807	355	4119	740
TOTAL, ALL OTHER SAMPLED INSTS.	18365	3884	1874	45	2535	303	424	41	2548	526	5656	1699	1631	486	3697	784
ESTIMATED TOTAL NON-SAMPLED INSTS.	15858	3749	444	5	2752	443	323	20	2913	622	3348	1341	1852	494	4226	824

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-68. — PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT PRIVATE UNIVERSITIES AND COLLEGES
BY FIELD AND SEX: JANUARY 1984

INSTITUTIONAL RANKING	TOTAL, ALL FIELDS		ENGINEERS		PHYSICAL SCIENTISTS		ENVIRON- MENTAL SCIENTISTS		MATH. AND COMPUTER SCIENTISTS		LIFE SCIENTISTS		PSYCHOLOGISTS		SOCIAL SCIENTISTS	
	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN
TOTAL, ALL INSTS.	30819	7560	3012	122	1861	429	369	97	5030	1304	12865	3192	2763	1064	4919	1352
1 HARVARD UNIVERSITY	2369	452	6	1	15	4	5	2	17	1	2286	437	6	2	34	9
2 HOWARD UNIVERSITY	939	59	31	5	9	1	0	0	5	1	867	48	1	1	26	3
3 NORTHEASTERN UNIVERSITY	816	174	127	4	121	18	11	0	223	27	129	64	61	15	144	46
4 NEW YORK UNIVERSITY	654	136	8	1	12	5	3	2	40	9	409	53	72	31	112	35
5 PHILA COL OSTEOPATHIC MED	601	14	0	0	0	0	0	0	0	0	601	14	0	0	0	0
6 GEORGE WASHINGTON UNIV	580	129	113	0	28	5	14	5	64	5	257	73	27	15	73	26
7 INTER AM U PR-SAN GERMAN	537	197	2	1	53	10	3	0	110	27	138	78	86	39	145	42
8 BOSTON UNIVERSITY	510	151	47	3	22	3	7	2	119	10	154	63	24	5	137	65
9 UNIV OF SOUTHERN CAL	485	107	87	4	13	1	18	3	11	1	282	79	19	2	55	17
10 TUFTS UNIVERSITY	465	73	14	1	3	1	0	0	9	3	420	62	4	3	15	3
TOTAL, 1ST 10 INSTS.	7958	1492	435	20	276	48	63	14	600	84	5543	971	300	113	741	242
11 COLUMBIA UNIV MAIN DIV	430	120	24	1	13	2	4	1	11	0	287	91	1	0	90	25
12 MASS INST OF TECHNOLOGY	408	112	113	22	42	8	22	10	24	4	101	37	33	15	73	16
13 FAIRLEIGH DICKINSON UNIV	391	46	49	2	29	7	3	0	48	11	203	18	25	7	34	1
14 INTER AM U PR-CTAL OFF	357	109	19	1	33	3	2	1	94	20	74	29	54	30	81	25
15 UNIV OF PENNSYLVANIA	341	89	35	5	17	1	2	1	15	2	248	73	7	4	17	3
16 YESHIVA UNIVERSITY	338	67	0	0	1	0	0	0	5	2	249	37	51	20	32	8
17 CHAPMAN COLLEGE	294	29	19	0	10	3	3	0	106	11	37	7	38	9	61	9
18 LOYOLA UNIV - CHICAGO	294	59	0	0	10	6	0	0	27	2	194	34	25	7	36	10
19 MERCY COLLEGE	282	111	0	0	5	0	2	0	81	34	28	18	77	45	89	14
20 STANFORD UNIVERSITY	281	45	138	5	23	4	19	2	33	7	37	15	10	6	21	6
TOTAL, 1ST 20 INSTS.	11374	2289	832	56	459	82	120	29	1044	177	7003	1330	641	256	1275	359
21 PACE UNIVERSITY	270	79	0	0	29	5	2	1	136	36	24	10	45	13	34	14
22 DARTMOUTH COLLEGE	269	54	4	0	7	0	3	0	4	1	231	48	11	3	9	2
23 CUMY HT SINAI SCH OF MED	267	41	0	0	5	0	0	0	1	0	256	39	5	2	0	0
24 FLORIDA INST OF TECH	260	17	14	0	7	0	6	1	60	9	3	0	16	6	152	1
25 WILLIAM RAINES HARPER COL	250	83	48	1	20	6	0	0	89	28	55	40	16	2	22	6
26	-	-	197	14	11	2	0	0	15	4	0	0	0	0	9	2
27 MARQUETTE UNIVERSITY	229	40	12	0	0	0	0	0	13	7	193	38	3	1	8	2
28 JOHNS HOPKINS UNIVERSITY	228	64	13	0	1	0	5	0	6	0	120	57	0	0	83	7
29 NEW YORK MEDICAL COLLEGE	221	38	0	0	0	0	0	0	0	0	221	38	0	0	0	0
30 NEW YORK INST TECHNOLOGY	221	33	43	2	24	0	0	0	57	17	77	9	9	1	11	4
TOTAL, 1ST 30 INSTS.	13821	2768	1165	73	563	95	136	31	1425	279	8183	1609	746	284	1603	397
31 LAWRENCE INST OF TECH	219	68	4	0	19	5	5	1	35	12	35	13	43	17	78	20
32 LONG ISLAND UNIVERSITY	218	49	0	0	17	1	4	2	48	5	83	21	21	9	45	11
33 UNIV OF HEALTH SCIENCES	217	21	0	0	0	0	0	0	0	0	217	21	0	0	0	0
34 NORTHWESTERN UNIVERSITY	210	36	19	0	2	1	3	0	8	1	150	30	7	1	21	3
35 JOHN F KENNEDY UNIVERSITY	207	96	0	0	0	0	0	0	8	1	15	8	122	71	62	16
36 LOMA LINDA UNIVERSITY	194	32	19	0	9	1	2	0	12	2	113	19	13	5	26	5
37 CASE WESTERN RESERVE UNIV	190	23	0	0	0	0	0	0	0	0	174	16	7	4	9	3
38	-	-	0	0	5	3	0	0	1	1	177	36	0	0	0	0
39 YALE UNIVERSITY	178	100	2	0	4	3	3	1	8	1	125	82	13	9	23	4
40 CORNELL UNIVERSITY	175	62	22	3	11	6	3	2	10	4	95	32	9	6	25	9
TOTAL, 1ST 40 INSTS.	15812	3292	1231	76	630	112	156	37	1555	306	9367	1887	981	406	1892	468
41 AMERICAN UNIVERSITY	164	38	0	0	3	0	0	0	77	9	11	8	8	1	65	20
42 VANDERBILT UNIVERSITY	162	14	5	0	0	0	1	0	2	1	136	6	12	3	6	4
43 WASHINGTON UNIVERSITY	158	45	27	0	5	4	2	0	1	0	99	31	7	3	17	7
44 EMORY UNIVERSITY	158	22	14	0	10	1	1	0	10	1	91	14	11	3	21	3
45 UNIVERSITY OF DETROIT	140	15	5	0	1	0	0	0	6	2	120	12	3	0	5	1
46 UNIVERSITY OF NEW HAVEN	140	20	23	0	12	3	2	1	35	6	10	3	9	1	49	6
47 WEST COAST UNIVERSITY	132	16	53	0	12	1	0	0	33	9	0	0	0	0	34	6
48 BAYLOR COL OF MEDICINE	130	36	0	0	0	0	0	0	0	0	130	36	0	0	0	0
49 BRIDGEPORT ENG INSTITUTE	129	5	87	0	13	0	0	0	15	4	0	0	0	0	14	1
50 PENN COL OF PODIATRIC MED	123	8	0	0	0	0	0	0	0	0	123	8	0	0	0	0
TOTAL, 1ST 50 INSTS.	17248	3511	1445	76	686	121	162	38	1734	338	10087	2005	1031	417	2103	516
TOTAL, ALL OTHER SAMPLED INSTS.	6643	1822	785	28	500	120	102	31	1320	318	1778	613	915	355	1243	357
ESTIMATED TOTAL NON-SAMPLED INSTS.	6928	2227	782	18	675	188	105	28	1976	648	1000	574	817	292	1573	479

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-49. — FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS
BY FIELD AND SEX: JANUARY 1984

INSTITUTIONAL RANKING	TOTAL, ALL FIELDS		ENGINEERS		PHYSICAL SCIENTISTS		ENVIRON- MENTAL SCIENTISTS		MATH. AND COMPUTER SCIENTISTS		LIFE SCIENTISTS		PSYCHOLOGISTS		SOCIAL SCIENTISTS	
	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN
TOTAL, ALL INSTS.	197508	38041	22513	946	17521	1453	6472	648	15110	2252	103844	26132	8566	2108	23482	4502
1 HARVARD UNIVERSITY	4716	963	43	0	258	19	49	4	57	10	4129	902	38	10	142	18
2 JOHNS HOPKINS UNIVERSITY	3405	540	1033	23	409	28	35	5	228	42	1515	390	27	7	158	45
3 UNIV OF WIS-MADISON	3121	763	304	31	201	9	189	24	198	17	1760	536	169	62	300	84
4 UNIVERSITY OF MINNESOTA	2965	529	200	5	148	10	40	1	163	18	1732	368	120	30	562	97
5 LOUISIANA STATE UNIV	2749	728	157	3	139	8	129	24	146	33	2000	623	38	9	140	28
6 MASS INST OF TECHNOLOGY	2706	493	807	64	626	55	154	25	161	16	650	260	79	37	229	36
7 OHIO STATE UNIVERSITY	2537	532	301	13	196	22	42	4	159	15	1490	413	54	13	293	52
8 CORNELL UNIVERSITY	2442	480	305	16	219	16	33	5	68	10	1430	321	116	45	271	67
9 TEXAS A & M UNIVERSITY	2418	169	417	10	195	3	94	6	154	12	1122	62	51	10	475	66
10 UNIVERSITY OF MICHIGAN	2414	530	328	18	263	35	56	3	112	9	1245	348	103	27	307	90
TOTAL, 1ST 10 INSTS.	29473	5727	3895	183	2564	205	821	101	1446	182	17073	4223	797	250	2877	583
11 UNIVERSITY OF FLORIDA	2385	455	239	5	98	2	21	1	73	6	1675	396	43	8	236	37
12 UNIV OF ILL URBANA	2175	369	378	18	252	28	117	19	225	39	776	169	143	41	284	55
13 UNIV OF CAL LOS ANGELES	2133	600	200	25	166	25	84	10	66	6	1350	464	70	18	197	52
14 PENNSYLVANIA STATE UNIV	2125	265	627	25	194	12	88	8	201	41	735	132	74	17	206	30
15 PURDUE UNIVERSITY	2027	275	527	18	266	22	29	1	226	40	690	156	88	20	201	18
16 UNIVERSITY OF PITTSBURGH	1968	561	130	7	158	14	18	1	201	54	1169	406	73	28	219	51
17 COLUMBIA UNIV MAIN DIV	1955	510	103	4	120	8	189	40	61	3	1224	398	18	6	240	51
18 UNIVERSITY OF KENTUCKY	1920	402	161	4	138	22	54	7	156	46	1089	262	76	26	246	35
19 UNIVERSITY OF WASHINGTON	1854	367	264	15	133	7	148	17	98	10	997	270	47	12	167	36
20 YALE UNIVERSITY	1785	444	46	2	133	10	39	0	63	7	1341	403	33	11	130	11
TOTAL, 1ST 20 INSTS.	49800	9975	6570	306	4222	355	1608	205	2816	434	28119	7279	1462	437	5003	959
21 N C STATE UNIV AT RALEIGH	1739	173	324	15	97	10	35	3	144	19	939	93	21	5	179	28
22 MICHIGAN STATE UNIVERSITY	1738	262	127	1	199	16	39	1	133	10	839	161	112	31	289	42
23 UNIVERSITY OF IOWA	1730	354	71	1	102	5	14	1	100	9	1228	302	35	7	179	29
24 INDIANA UNIVERSITY	1703	414	48	4	197	15	110	8	114	12	923	312	112	24	199	39
25 UNIV OF CAL DAVIS	1674	318	78	5	61	4	17	0	49	7	1359	276	20	5	90	21
26 UNIV OF TEXAS AT AUSTIN	1667	261	248	11	401	32	170	22	232	36	209	62	107	28	300	70
27 WASHINGTON UNIVERSITY	1609	339	57	0	83	4	20	2	91	11	1275	314	22	3	61	5
28 UNIV OF CAL BERKELEY	1552	278	344	27	239	30	23	2	84	5	609	145	54	22	197	47
29 UNIV OF PENNSYLVANIA	1551	271	81	4	87	5	5	0	85	9	1041	219	27	7	225	27
30 RUTGERS THE ST UNIV OF NJ	1507	301	117	8	168	26	61	4	217	26	411	76	128	40	405	121
TOTAL, 1ST 30 INSTS.	66270	12946	8045	382	5857	502	2102	248	4065	578	36952	9239	2102	609	7127	1388
31 DUKE UNIVERSITY	1503	320	50	3	77	5	39	9	42	3	1160	273	25	5	110	22
32 UNIVERSITY OF ARIZONA	1493	243	169	3	208	13	102	5	109	12	635	158	81	22	189	30
33 UNIVERSITY OF KANSAS	1452	476	121	3	69	8	66	10	59	9	813	327	161	83	163	36
34 UNIV OF CAL SAN FRANCISCO	1450	539	0	0	0	0	0	0	0	0	1450	539	0	0	0	0
35 IOWA ST U OF SCI & TECH	1392	188	356	35	94	11	17	0	154	23	582	94	25	3	164	22
36 NEW YORK UNIVERSITY	1391	262	24	0	76	4	0	0	150	11	878	184	79	23	184	40
37 UNIV OF NC AT CHAPEL HILL	1358	248	39	1	87	5	24	1	55	1	956	196	49	12	148	32
38 UNIV OF MD COLLEGE PARK	1352	219	214	9	336	37	31	4	173	22	336	83	66	22	196	42
39 UNIV OF SOUTHERN CAL	1332	210	157	7	86	8	30	1	56	4	876	168	40	4	87	18
40 CASE WESTERN RESERVE UNIV	1326	275	125	5	76	3	8	1	39	2	1035	254	13	3	30	7
TOTAL, 1ST 40 INSTS.	80319	15926	9320	448	6966	596	2419	279	4902	665	45673	11515	2641	786	8398	1637
41 UNIVERSITY OF CINCINNATI	1317	252	140	17	66	1	13	2	93	15	843	190	29	5	133	22
42 UNIV OF CAL SAN DIEGO	1301	289	28	3	146	15	330	66	73	5	627	180	29	8	68	12
43 UNIVERSITY OF CONNECTICUT	1271	296	122	6	60	5	33	4	63	7	687	181	103	30	203	63
44 UNIVERSITY OF CHICAGO	1258	235	46	1	171	12	41	2	64	3	771	191	45	14	120	12
45 NORTHWESTERN UNIVERSITY	1250	210	152	6	144	10	18	1	104	5	639	169	50	0	143	19
46 UNIV OF MISSOURI COLUMBIA	1231	247	110	3	48	4	29	2	53	7	820	195	41	12	130	24
47 UNIVERSITY OF UTAH	1230	249	139	11	126	2	30	3	89	6	695	193	29	7	122	27
48 NEM MEXICO STATE UNIV	1214	204	258	5	86	8	15	0	192	40	385	60	77	25	201	66
49 UNIVERSITY OF MIAMI	1187	231	70	1	35	0	103	5	50	5	848	212	37	5	44	3
50 SUNY AT STONY BROOK	1164	253	64	5	189	15	57	6	92	12	584	171	57	15	121	29
TOTAL, 1ST 50 INSTS.	92742	18392	10449	506	8037	668	3088	370	5775	770	52572	13257	3138	907	9683	1914
TOTAL, ALL OTHER INSTS.	104766	19649	12064	440	9484	785	3384	278	9335	1482	51272	12875	5428	1201	13799	2588

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-70. -- PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS
BY FIELD AND SEX: JANUARY 1984

INSTITUTIONAL RANKING	TOTAL, ALL FIELDS		ENGINEERS		PHYSICAL SCIENTISTS		ENVIRONMENTAL SCIENTISTS		MATH. AND COMPUTER SCIENTISTS		LIFE SCIENTISTS		PSYCHOLOGISTS		SOCIAL SCIENTISTS	
	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN
TOTAL, ALL INSTS.	46778	11955	4476	373	2606	521	975	261	4184	1048	26995	7264	2300	917	5042	1567
1 HARVARD UNIVERSITY	2369	452	6	1	15	4	5	2	17	1	2286	437	6	2	34	5
2 OHIO STATE UNIVERSITY	2049	412	49	6	30	8	8	1	64	11	1761	344	19	3	118	39
3 HARVARD UNIVERSITY	939	59	31	5	9	1	0	0	5	1	867	48	1	1	26	3
4 UNIV OF CAL LOS ANGELES	839	301	95	13	50	12	15	3	10	1	582	231	19	10	68	31
5 UNIV OF CAL SAN FRANCISCO	826	301	0	0	0	0	0	0	0	0	826	301	0	0	0	0
6 NORTHEASTERN UNIVERSITY	816	174	127	4	121	18	11	0	223	27	129	64	61	15	144	46
7 UNIV OF CAL BERKELEY	800	249	192	42	180	30	8	2	28	9	261	110	45	26	86	30
8 INDIANA UNIVERSITY	780	240	58	12	45	9	43	8	86	29	424	141	43	17	81	24
9 UNIV OF WIS-MADISON	709	304	80	16	33	7	31	13	29	11	423	198	31	19	82	40
10 NEW YORK UNIVERSITY	656	136	8	1	12	5	3	2	40	9	409	93	72	31	112	35
TOTAL, 1ST 10 INSTS.	10783	2628	646	100	495	94	124	31	502	99	7968	1927	297	124	751	253
11 UNIVERSITY OF MICHIGAN	643	186	82	7	25	8	12	5	8	2	426	118	27	15	63	31
12 PHILA COL OSTEOPTATHIC MED	601	14	0	0	0	0	0	0	0	0	601	14	0	0	0	0
13 GEORGE WASHINGTON UNIV	580	129	113	0	28	5	16	5	66	5	257	73	27	15	73	26
14 UNIVERSITY OF WASHINGTON	557	202	45	7	22	2	23	7	18	4	378	156	16	9	55	17
15 LOUISIANA STATE UNIV	533	140	14	0	10	3	10	5	23	10	456	114	9	5	11	3
16 UNIV OF CAL DAVIS	523	213	31	2	17	4	1	1	13	4	430	188	6	3	25	11
17 BOSTON UNIVERSITY	510	151	47	3	22	3	7	2	119	10	154	63	24	5	137	65
18 UNIV OF MD BALT PROF SCH	505	143	0	0	0	0	0	0	5	3	484	128	0	0	16	12
19 UNIVERSITY OF UTAH	494	117	111	16	98	17	25	6	33	5	176	58	16	4	35	11
20 UNIV OF SOUTHERN CAL	485	107	87	4	13	1	18	3	11	1	282	79	19	2	55	17
TOTAL, 1ST 20 INSTS.	16214	4030	1176	139	730	137	236	65	798	143	11612	2918	441	182	1221	446
21 UNIVERSITY OF MINNESOTA	475	115	50	4	7	2	4	3	17	0	335	76	7	4	55	26
22 TUFTS UNIVERSITY	465	73	14	1	3	1	0	0	9	3	420	62	4	3	15	3
23 UNIVERSITY OF COLORADO	455	90	56	4	170	26	75	15	11	1	88	28	28	11	27	5
24 COLUMBIA UNIV MAIN DIV	430	120	24	1	13	2	4	1	11	0	287	91	1	0	90	25
25 MASS INST OF TECHNOLOGY	408	112	113	22	42	8	22	10	24	4	101	37	33	15	73	16
26 UNIV OF CAL SAN DIEGO	397	130	5	0	50	10	56	17	22	1	241	94	7	4	16	4
27 FAIRLEIGH DICKINSON UNIV	391	46	49	2	29	7	3	0	48	11	203	18	25	7	34	1
28 PURDUE UNIVERSITY	389	113	99	4	25	5	0	0	102	37	98	57	20	7	45	3
29 U TEX HLTH SCI CTR DALLAS	379	122	0	0	0	0	0	0	3	1	368	119	8	2	0	0
30 UNIVERSITY OF PITTSBURGH	378	126	24	0	11	1	1	0	71	24	199	71	16	10	56	20
TOTAL, 1ST 30 INSTS.	20381	5077	1610	177	1080	199	401	111	1116	225	13952	3571	590	245	1632	549
31 WASHINGTON STATE UNIV	366	29	12	1	12	0	4	0	13	0	298	27	9	0	18	1
32 UNIVERSITY OF KENTUCKY	365	122	29	1	15	4	3	0	72	27	164	58	40	14	43	18
33 UNIV OF PENNSYLVANIA	341	89	35	5	17	1	2	1	15	2	248	73	7	4	17	3
34 SUNY AT BUFFALO	340	47	21	3	7	0	0	0	0	0	299	40	3	1	10	3
35 YESHIVA UNIVERSITY	338	67	0	0	1	0	0	0	5	2	249	37	51	20	32	8
36 UNIV OF ILL CHICAGO	330	102	8	1	4	2	2	0	8	4	265	76	10	5	29	14
37 UNIVERSITY OF IOWA	330	126	9	1	4	1	0	0	8	3	273	108	5	3	31	10
38 MAYNE STATE UNIVERSITY	323	98	38	11	25	7	1	1	34	11	138	42	30	9	57	17
39 UNIV OF HAWAII-MANOA	310	104	8	0	8	2	6	0	13	5	219	70	7	2	49	25
40 PENNSYLVANIA STATE UNIV	302	103	62	4	46	11	2	1	86	36	77	41	6	1	23	9
TOTAL, 1ST 40 INSTS.	23727	5964	1832	204	1223	227	421	114	1370	315	16182	4143	758	304	1941	657
41 TEMPLE UNIVERSITY	296	76	21	1	14	4	1	1	41	10	127	28	27	14	65	18
42 LOYOLA UNIV - CHICAGO	294	59	0	0	10	4	0	0	27	2	196	34	25	7	36	10
43 UNIVERSITY OF NEW MEXICO	293	99	71	8	37	9	17	2	23	9	128	65	3	1	14	5
44 UNIV OF WIS-MILWAUKEE	290	83	45	4	26	1	27	2	39	13	70	37	19	6	64	20
45 UNIVERSITY OF CONNECTICUT	290	120	24	5	13	3	5	1	38	9	129	59	32	15	49	28
46 OREGON HLTH SCIENCES UNIV	284	96	0	0	0	0	0	0	0	0	280	96	4	0	0	0
47 STANFORD UNIVERSITY	281	45	138	5	23	4	19	2	33	7	37	15	10	6	21	6
48 UNIV OF ILL URBANA	272	109	45	6	19	7	29	8	16	6	117	56	21	13	25	13
49 PACE UNIVERSITY	270	79	0	0	29	5	2	1	136	36	24	10	45	13	34	14
50 DARTMOUTH COLLEGE	269	54	4	0	7	0	3	0	4	1	231	48	11	3	9	2
TOTAL, 1ST 50 INSTS.	26566	6784	2180	233	1401	266	524	131	1727	408	17521	4591	955	382	2258	773
TOTAL, ALL OTHER INSTS.	20212	5171	2496	140	1205	255	451	130	2457	640	9474	2677	1345	535	2784	794

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-71. — SCIENTISTS AND ENGINEERS EMPLOYED AT HISTORICALLY BLACK COLLEGES: JANUARY 1983 AND JANUARY 1984

INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1984	1983	1984	1983	1984	1983	1984	1983
TOTAL, ALL INSTITUTIONS	7,515	7,298	5,420	5,574	1,695	1,724	6,340	6,168
1 HOWARD UNIVERSITY	2,093	1,953	1,154	1,017	939	936	1,378	1,261
2 CHEYNEY UNIV OF PENN	4781	4491	4781	4491	01	01	4781	4491
3 UNIVERSITY OF D C	2311	2261	1601	1571	711	691	1971	1921
4 MENDOTA MEDICAL COLLEGE	2001	1961	1991	1951	11	11	2001	1961
5 FLORIDA A & M UNIVERSITY	1941	190	1921	188	21	2	1921	188
6 TUSKEGEE INSTITUTE	1901	183	1721	167	181	16	1801	174
7 SOUTHERN U & A&M COLLEGE	1831	1801	1821	1791	11	11	1821	1791
8 MC AG & TECH STATE UNIV	178	148	157	122	21	26	163	143
9 ALABAMA A & M UNIVERSITY	156	125	109	103	47	22	120	108
10 TENNESSEE STATE UNIV	1471	1441	1401	1371	71	71	1421	1391
TOTAL, 1ST 10 INSTS.	4,050	3,814	2,943	2,734	1,107	1,080	3,234	3,051
11 JACKSON STATE UNIVERSITY	125	144	112	118	13	26	118	128
12 MOREHOUSE SCHOOL OF MED	119	-	100	-	19	-	109	-
13 TEXAS SOUTHERN UNIV	117	1281	108	1131	9	151	100	1181
14 LINCOLN UNIVERSITY (MO)	107	861	76	761	31	101	84	841
15 VIRGINIA STATE UNIVERSITY	1001	981	831	811	171	171	921	901
16 NORTH CAROLINA CNTRL UNIV	99	113	90	96	9	17	93	100
17 SOUTH CAROLINA ST COLLEGE	911	89	911	89	01	0	911	89
18 MORGAN STATE UNIVERSITY	91	981	77	921	14	61	84E	931
19 COL OF THE VIRGIN ISLANDS	90	87	48	52	42	25	74	62
20 XAVIER UNIVERSITY OF LA	871	841	681	641	191	181	771	741
TOTAL, 1ST 20 INSTS.	5,076	4,741	3,796	3,517	1,280	1,224	4,160	3,893
21 COPPIN STATE COLLEGE	83	98	51	50	32	48	621	69
22 ALABAMA STATE UNIVERSITY	72	801	44	541	28	261	56	441
23 PRAIRIE VIEW A & M UNIV	711	701	621	611	91	91	651	641
24 WINSTON-SALEM STATE UNIV	71	691	49	591	22	101	57	611
25 DELAWARE STATE COLLEGE	69	68	67	66	2	2	66	65
26 GRAMBLING STATE UNIV	66	67	61	62	5	5	59	61
27 ALCONN STATE UNIVERSITY	64	661	64	641	0	01	641	641
28 U OF MD EASTERN SHORE	64	60	54	55	10	5	58	56
29 UNIV OF ARK PINE BLUFF	64	74	61	48	3	28	41	56
30 HAMPTON INSTITUTE	631	611	611	591	21	21	611	591
TOTAL, 1ST 30 INSTS.	5,763	5,456	4,370	4,097	1,393	1,359	4,752	4,517
31 BONIE STATE COLLEGE	601	591	431	421	171	171	501	491
32 CLARK COLLEGE	601	581	401	391	201	191	501	491
33 LANGSTON UNIVERSITY	60	51	41	45	19	6	50	48
34 KENTUCKY STATE UNIVERSITY	58	281	55	281	3	01	581	281
35 FAYETTEVILLE STATE UNIV	57	431	48	491	9	141	51	591
36 ATLANTA UNIVERSITY	57	46	37	38	20	8	45	41
37 BETHUNE COOKMAN COLLEGE	55	57	51	53	4	4	53	55
38 LINCOLN UNIVERSITY (PA)	541	531	421	411	121	121	441	441
39 SAVANNAH STATE COLLEGE	53	50	53	50	0	0	53	50
40 SPELMAN COLLEGE	50	50	38	29	12	21	41	36
TOTAL, 1ST 40 INSTS.	6,327	5,971	4,818	4,511	1,509	1,460	5,252	4,979
41 FISK UNIVERSITY	501	47	311	30	191	17	361	34
42 MOREHOUSE COLLEGE	50	1111	44	681	6	431	47	881
43 ALBANY STATE COLLEGE	48	46	48	43	0	3	48	43
44 CENTRAL STATE UNIVERSITY	47	46	42	42	5	4	44	44
45 ELIZABETH CITY STATE UNIV	471	441	351	341	121	121	391	381
46 SHAW COLLEGE AT DETROIT	461	441	341	331	121	111	381	371
47 BENEDICT COLLEGE	45	36	39	35	6	1	41	35
48 MISS VALLEY STATE UNIV	451	44	451	44	01	0	441	44
49 FORT VALLEY STATE COLLEGE	40	721	37	721	3	01	39	721
50 LANSON STATE CMTY COLLEGE	331	311	191	181	141	131	241	221
TOTAL, 1ST 50 INSTS.	6,778	6,494	5,192	4,930	1,586	1,564	5,657	5,438

SEE FOOTNOTES AT END OF TABLE.

TABLE B-71. — SCIENTISTS AND ENGINEERS EMPLOYED AT HISTORICALLY BLACK COLLEGES: JANUARY 1983 AND JANUARY 1984

- CONTINUED INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1984	1983	1984	1983	1984	1983	1984	1983
51 LE MOYNE-OWEN COLLEGE	32I	31I	23I	22I	9I	9I	27I	26I
52 VIRGINIA UNION UNIVERSITY	30	34I	19	25I	11	31I	21	38I
53 FLORIDA MEMORIAL COLLEGE	30I	29	15I	15	15I	14	23I	22
54 JOHNSON C SMITH UNIV	30I	29	28I	27	2I	2	29I	26
55 ST AUGUSTINES COLLEGE	30	29	28	27	2	2	28	25
56 TALLADEGA COLLEGE	29	40I	29	37I	0	3I	29	37I
57 HINDS J CO DIST UTICA CAM	29	12I	28	10I	1	2I	28	11I
58 TOUGALOO COLLEGE	27I	26I	27I	26I	0I	0I	27I	26I
59 OAKWOOD COLLEGE	26I	25I	25I	24I	1I	1I	25I	24I
60 PAINE COLLEGE	26	22I	26	21I	0	1I	26	22I
TOTAL, 1ST 60 INSTS.	7,067	6,753	5,440	5,164	1,627	1,629	5,922	5,697
61 LIVINGSTONE COLLEGE	26I	25I	23I	22I	3I	3I	24I	23I
62 WILBERFORCE UNIVERSITY	24	35I	17	22I	7	13I	19	28I
63 DILLARD UNIVERSITY	24I	23I	21I	20I	3I	3I	22I	21I
64 KNOXVILLE COLLEGE	24	27I	20	17I	4	10I	22	27I
65 COAHOMA JUNIOR COLLEGE	22	21I	20	19I	2	2I	22	21I
66 BISHOP COLLEGE	20	7	17	5	3	2	19	7
67 STILLMAN COLLEGE	18	13	18	13	0	0	18	13
68 BENNETT COLLEGE (WC)	18	30I	16	14I	2	11I	17	27I
69 PHILANDER SMITH COLLEGE	17	19	10	11	7	8	12	13
70 CLAFLIN COLLEGE	16	19	14	13	2	6	15	17
TOTAL, 1ST 70 INSTS.	7,276	7,012	5,616	5,325	1,660	1,687	6,114	5,895
71 S D BISHOP ST JR COLLEGE	15	26	14	26	1	0	15I	26
72 NORFOLK STATE UNIVERSITY	15	28I	13	24I	2	2I	13	26I
73 LAKE COLLEGE	15I	14I	3I	3I	12I	11I	13I	12I
74 WILES COLLEGE	15	19	11	18	4	1	15	18
75 MORRIS BROWN COLLEGE	15	29	15	21	0	8	15I	25
76 SHAW UNIVERSITY	14	21	14	20	0	1	14	21
77 ALLEN UNIVERSITY	13I	13	10I	10	3I	3	10I	11
78 BARBER-SCOTIA COLLEGE	13	13I	9	8I	4	5I	9	10I
79 JARVIS CHRISTIAN COLLEGE	13	12I	12	12I	1	0I	12	12I
80 PAUL QUINN COLLEGE	12I	12I	11I	11I	1I	1I	11I	11I
TOTAL, 1ST 80 INSTS.	7,416	7,199	5,728	5,480	1,688	1,719	6,244	6,070
81 MUST COLLEGE	11I	11	11I	11	0I	0	11I	11
82 TEXAS COLLEGE	11I	11I	11I	11I	0I	0I	11I	11I
83 EDWARD WATERS COLLEGE	11I	11I	11I	11I	0I	0I	11I	11I
84 MARY HOLMES COLLEGE	11	14I	10	14I	1	0I	10	14I
85 MORRIS COLLEGE	11I	11I	11I	11I	0I	0I	11I	11I
86 WILEY COLLEGE	10I	10I	10I	10I	0I	0I	10I	10I
87 SELMA UNIVERSITY	9I	9I	8I	8I	1I	1I	8I	8I
88 MORRISTOWN COLLEGE	8	6	6	5	2	1	7	6
89 VOORHEES COLLEGE	8I	8I	7I	7I	1I	1I	7I	7I
90 SOUTHWESTN CHRISTIAN COL	5	4	5	4	0	0	5	4
TOTAL, 1ST 90 INSTS.	7,511	7,294	5,818	5,572	1,693	1,722	6,336	6,164
91 PRENTISS NORM & IND INST	4I	4I	2I	2I	2I	2I	4I	4I
TOTAL, 1ST 91 INSTS.	7,515	7,298	5,820	5,574	1,695	1,724	6,340	6,168

NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED.
DASHES INDICATE THAT DATA ARE NOT AVAILABLE; DASHES FOLLOWED BY "C" INDICATE CONFIDENTIAL DATA.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-72. -- SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES
BY FIELD AND INSTITUTIONAL CATEGORY: JANUARY 1984

FIELD	INSTITUTIONAL CATEGORY 1/				
	DOCTORATE GRANTING	COMPRE- HENSIVE	GENERAL BACCALAU- REATE	PROFESSIONAL AND SPECIALIZED	2-YEAR
TOTAL	188,688	68,437	26,612	35,890	50,863
ENGINEERS	21,374	6,211	652	4,208	6,570
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	875	167	18	220	114
CHEMICAL ENGINEERS	1,827	348	6	212	67
CIVIL ENGINEERS	2,589	1,089	193	490	896
ELECTRICAL ENGINEERS	4,714	1,776	167	1,688	2,090
MECHANICAL ENGINEERS	3,276	1,362	132	774	1,528
OTHER ENGINEERS	7,093	1,469	136	824	1,875
PHYSICAL SCIENTISTS	16,168	8,118	3,971	1,743	5,521
ASTRONOMERS	896	123	47	8	159
CHEMISTS	7,683	4,576	2,582	837	3,143
PHYSICISTS	6,720	3,073	1,238	833	1,782
OTHER PHYSICAL SCIENTISTS	909	344	104	65	437
ENVIRONMENTAL SCIENTISTS	6,091	2,485	652	586	810
ATMOSPHERIC SCIENTISTS	724	72	36	112	31
EARTH SCIENTISTS	3,516	1,919	478	217	616
OCEANOGRAPHERS	1,215	215	50	203	84
OTHER ENVIRONMENTAL SCIENTISTS	636	279	88	54	79
MATHEMATICAL AND COMPUTER SCIENTISTS	14,147	12,153	5,587	2,086	14,309
MATHEMATICIANS	8,991	8,831	3,743	1,235	9,447
COMPUTER SCIENTISTS	5,156	4,322	1,844	851	4,862
LIFE SCIENTISTS	99,868	15,298	5,691	24,566	10,856
AGRICULTURAL SCIENTISTS	13,925	1,417	507	131	1,035
BIOLOGICAL SCIENTISTS	27,140	7,270	3,515	5,633	5,000
MEDICAL SCIENTISTS	53,195	2,754	307	17,701	1,928
OTHER LIFE SCIENTISTS	5,608	3,857	1,362	1,101	2,893
PSYCHOLOGISTS	7,906	7,091	3,055	1,325	4,590
SOCIAL SCIENTISTS	23,134	16,081	7,004	1,336	8,207
ECONOMISTS	6,758	4,499	2,228	378	1,984
POLITICAL SCIENTISTS	4,441	3,628	1,588	279	1,672
SOCIOLOGISTS	4,600	4,105	2,105	281	2,439
OTHER SOCIAL SCIENTISTS	7,335	3,839	1,083	398	2,112

1/ DATA SHOWN FOR DOCTORATE-GRANTING INSTITUTIONS IN THIS NCES CLASSIFICATION OF INSTITUTIONS DIFFER FROM THE CLASSIFICATION USED ELSEWHERE IN THIS REPORT. SEE TECHNICAL NOTES.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-73. -- FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES
BY FIELD AND INSTITUTIONAL CATEGORY: JANUARY 1984

FIELD	INSTITUTIONAL CATEGORY 1/				
	DOCTORATE GRANTING	COMPRE- HENSIVE	GENERAL BACCALAU- REATE	PROFESSIONAL AND SPECIALIZED	2-YEAR
TOTAL	154,748	50,988	19,792	27,220	28,813
ENGINEERS	17,944	4,250	498	2,976	3,767
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	753	108	10	195	72
CHEMICAL ENGINEERS	1,525	278	5	180	55
CIVIL ENGINEERS	2,925	809	143	411	596
ELECTRICAL ENGINEERS	4,071	1,094	128	879	1,131
MECHANICAL ENGINEERS	2,774	918	120	607	992
OTHER ENGINEERS	5,896	1,043	92	704	921
PHYSICAL SCIENTISTS	14,260	6,444	3,288	1,501	3,537
ASTRONOMERS	783	102	36	7	84
CHEMISTS	6,638	3,622	2,154	719	2,210
PHYSICISTS	6,163	2,416	1,031	713	1,208
OTHER PHYSICAL SCIENTISTS	716	304	67	62	265
ENVIRONMENTAL SCIENTISTS	5,276	2,079	520	528	530
ATMOSPHERIC SCIENTISTS	598	53	28	108	18
EARTH SCIENTISTS	3,090	1,997	384	197	445
OCEANOGRAPHERS	1,108	202	23	171	24
OTHER ENVIRONMENTAL SCIENTISTS	480	227	75	92	43
MATHEMATICAL AND COMPUTER SCIENTISTS	11,617	8,681	3,625	1,459	6,958
MATHEMATICIANS	7,432	5,864	2,592	870	4,649
COMPUTER SCIENTISTS	4,185	2,817	1,033	589	1,909
LIFE SCIENTISTS	79,935	12,192	4,583	18,665	7,314
AGRICULTURAL SCIENTISTS	12,949	1,339	482	124	708
BIOLOGICAL SCIENTISTS	24,057	6,106	2,873	5,134	3,409
MEDICAL SCIENTISTS	38,532	1,872	256	12,636	1,210
OTHER LIFE SCIENTISTS	4,397	2,875	1,002	771	1,987
PSYCHOLOGISTS	6,392	5,112	2,112	1,013	2,458
SOCIAL SCIENTISTS	19,324	12,230	5,166	1,078	4,649
ECONOMISTS	5,886	3,280	1,630	299	1,027
POLITICAL SCIENTISTS	3,681	2,846	1,313	231	1,048
SOCIOLOGISTS	3,792	3,302	1,518	240	1,356
OTHER SOCIAL SCIENTISTS	5,965	2,802	705	308	1,198

1/ DATA SHOWN FOR DOCTORATE-GRANTING INSTITUTIONS IN THIS NCES CLASSIFICATION OF INSTITUTIONS DIFFER FROM THE CLASSIFICATION USED ELSEWHERE IN THIS REPORT. SEE TECHNICAL NOTES.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-74. — PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES
BY FIELD AND INSTITUTIONAL CATEGORY: JANUARY 1984

FIELD	INSTITUTIONAL CATEGORY 1/				
	DOCTORATE GRANTING	COMPREHENSIVE	GENERAL BACCALAUREATE	PROFESSIONAL AND SPECIALIZED	2-YEAR
TOTAL	33,940	17,449	6,820	8,630	22,050
ENGINEERS	3,430	1,961	154	1,232	2,803
AERONAUTICAL AND ASTRONAUTICAL					
ENGINEERS	122	59	8	25	42
CHEMICAL ENGINEERS	302	70	1	32	12
CIVIL ENGINEERS	444	280	90	79	300
ELECTRICAL ENGINEERS	443	452	39	809	959
MECHANICAL ENGINEERS	902	444	12	167	536
OTHER ENGINEERS	1,197	426	44	120	954
PHYSICAL SCIENTISTS	1,908	1,674	683	242	1,984
ASTRONOMERS	103	21	11	1	105
CHEMISTS	1,055	954	428	118	1,133
PHYSICISTS	557	657	207	120	574
OTHER PHYSICAL SCIENTISTS	193	42	37	3	172
ENVIRONMENTAL SCIENTISTS	815	406	132	58	280
ATMOSPHERIC SCIENTISTS	126	19	8	4	13
EARTH SCIENTISTS	426	322	94	20	171
OCEANOGRAPHERS	107	13	17	32	60
OTHER ENVIRONMENTAL SCIENTISTS	156	52	13	2	36
MATHEMATICAL AND COMPUTER SCIENTISTS	2,530	4,472	1,962	627	7,751
MATHEMATICIANS	1,559	2,967	1,151	365	4,798
COMPUTER SCIENTISTS	971	1,505	811	262	2,953
LIFE SCIENTISTS	19,933	3,106	1,108	5,901	3,542
AGRICULTURAL SCIENTISTS	976	78	25	7	327
BIOLOGICAL SCIENTISTS	3,083	1,164	642	499	1,591
MEDICAL SCIENTISTS	14,643	882	51	5,045	718
OTHER LIFE SCIENTISTS	1,211	982	360	330	906
PSYCHOLOGISTS	1,514	1,979	943	312	2,132
SOCIAL SCIENTISTS	3,810	3,851	1,838	258	3,558
ECONOMISTS	872	1,219	598	79	957
POLITICAL SCIENTISTS	760	792	275	48	604
SOCIOLOGISTS	808	803	587	41	1,083
OTHER SOCIAL SCIENTISTS	1,370	1,037	378	90	914

1/ DATA SHOWN FOR DOCTORATE-GRANTING INSTITUTIONS IN THIS NCES CLASSIFICATION OF INSTITUTIONS
DIFFER FROM THE CLASSIFICATION USED ELSEWHERE IN THIS REPORT. SEE TECHNICAL NOTES.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-75. — SCIENTISTS AND ENGINEERS EMPLOYED AT FEDERALLY FUNDED
RESEARCH AND DEVELOPMENT CENTERS BY FIELD: JANUARY 1977-78 AND JANUARY 1980-84 1/

FIELD	1977	1978	1980	1981	1982	1983	1984
TOTAL	13,917	14,821	15,080	15,296	15,141	15,099	15,213
ENGINEERS, TOTAL	6,365	6,627	6,515	6,609	6,558	6,538	5,991
AERONAUTICAL AND ASTRONAUTICAL							
ENGINEERS	206	222	240	247	244	243	185
CHEMICAL ENGINEERS	270	282	276	297	285	275	292
CIVIL ENGINEERS	217	151	211	227	243	248	265
ELECTRICAL ENGINEERS	2,729	2,718	2,229	2,301	2,252	2,246	2,259
MECHANICAL ENGINEERS	1,572	1,693	1,584	1,590	1,560	1,535	1,524
OTHER ENGINEERS	1,369	1,561	1,973	1,947	1,974	1,991	1,466
ALL SCIENCES, TOTAL	7,532	8,194	8,565	8,687	8,583	8,561	9,222
PHYSICAL SCIENTISTS	5,002	5,379	5,620	5,512	5,450	5,435	5,681
ASTRONOMERS 2/	-	-	152	151	140	156	305
CHEMISTS	1,382	1,414	1,454	1,423	1,411	1,373	1,408
PHYSICISTS	3,080	3,394	3,463	3,503	3,473	3,484	3,524
OTHER PHYSICAL SCIENTISTS	540	571	551	435	426	422	444
ENVIRONMENTAL SCIENTISTS	397	507	709	853	768	749	773
ATMOSPHERIC SCIENTISTS	194	173	101	217	171	197	220
EARTH SCIENTISTS	189	315	294	297	261	239	230
OCEANOGRAPHERS	14	19	16	26	22	19	21
OTHER ENVIRONMENTAL SCIENTISTS 2/	-	-	298	313	314	294	302
MATHEMATICAL AND COMPUTER SCIENTISTS	1,372	1,465	1,383	1,444	1,722	1,526	1,746
MATHEMATICIANS	651	770	678	702	720	705	772
COMPUTER SCIENTISTS	721	695	705	742	802	821	974
LIFE SCIENTISTS	658	706	727	754	740	753	794
AGRICULTURAL SCIENTISTS	0	0	1	5	4	3	0
BIOLOGICAL SCIENTISTS	561	610	498	523	540	532	557
MEDICAL SCIENTISTS	97	96	94	70	56	63	123
OTHER LIFE SCIENTISTS 2/	-	-	134	154	140	135	114
PSYCHOLOGISTS	19	17	5	9	4	6	36
SOCIAL SCIENTISTS	106	120	121	115	99	92	192
ECONOMISTS	57	61	83	73	64	58	89
POLITICAL SCIENTISTS	8	9	13	14	12	16	24
SOCIOLOGISTS	1	4	1	5	4	3	7
OTHER SOCIAL SCIENTISTS	28	46	24	23	19	15	72

1/ DATA WERE NOT COLLECTED IN 1979.
2/ DATA NOT AVAILABLE PRIOR TO 1980.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-76. — MALE FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTERS BY FIELD: JANUARY 1977-78 AND JANUARY 1980-84 1/

FIELD	1977	1978	1980	1981	1982	1983	1984
TOTAL	13,005	13,780	13,799	13,765	13,522	13,511	13,454
ENGINEERS	6,269	6,518	6,306	6,301	6,234	6,200	5,691
AERONAUTICAL AND ASTRONAUTICAL							
ENGINEERS	204	220	234	232	229	228	176
CHEMICAL ENGINEERS	261	275	258	273	261	253	263
CIVIL ENGINEERS	215	148	202	219	233	240	252
ELECTRICAL ENGINEERS	2,705	2,687	2,169	2,217	2,157	2,142	2,147
MECHANICAL ENGINEERS	1,550	1,667	1,557	1,529	1,501	1,475	1,465
OTHER ENGINEERS	1,332	1,521	1,886	1,831	1,853	1,862	1,388
PHYSICAL SCIENTISTS	4,661	4,980	5,195	5,062	4,970	4,981	5,178
ASTRONOMERS 2/	-	-	139	141	131	144	278
CHEMISTS	1,256	1,278	1,284	1,253	1,235	1,209	1,219
PHYSICISTS	2,941	3,230	3,262	3,265	3,214	3,240	3,269
OTHER PHYSICAL SCIENTISTS	464	472	508	403	390	388	412
ENVIRONMENTAL SCIENTISTS	361	440	601	726	636	608	635
ATMOSPHERIC SCIENTISTS	183	161	98	191	152	170	192
EARTH SCIENTISTS	166	283	244	249	212	189	186
OCEANOGRAPHERS	13	16	15	22	20	17	17
OTHER ENVIRONMENTAL SCIENTISTS 2/	-	-	244	264	252	232	240
MATHEMATICAL AND COMPUTER SCIENTISTS	1,122	1,168	1,065	1,065	1,100	1,136	1,270
MATHEMATICIANS	550	605	536	542	543	549	573
COMPUTER SCIENTISTS	572	563	529	523	557	587	697
LIFE SCIENTISTS	492	535	482	512	501	505	522
AGRICULTURAL SCIENTISTS	0	0	0	5	3	3	0
BIOLOGICAL SCIENTISTS	417	477	329	345	368	372	369
MEDICAL SCIENTISTS	75	58	68	56	42	45	64
OTHER LIFE SCIENTISTS 2/	-	-	85	106	88	85	69
PSYCHOLOGISTS	16	15	5	6	3	3	23
SOCIAL SCIENTISTS	84	104	105	93	78	78	135
ECONOMISTS	45	53	75	43	53	53	72
POLITICAL SCIENTISTS	8	9	12	13	11	13	19
SOCIOLOGISTS	0	3	0	2	2	2	1
OTHER SOCIAL SCIENTISTS	31	39	18	15	12	10	43

1/ DATA WERE NOT COLLECTED IN 1979.
2/ DATA NOT AVAILABLE PRIOR TO 1980.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-77. — FEMALE FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTERS BY FIELD: JANUARY 1977-78 AND JANUARY 1980-84 1/

FIELD	1977	1978	1980	1981	1982	1983	1984
TOTAL	710	820	947	1,028	1,073	1,060	1,205
ENGINEERS	65	79	163	173	184	185	177
AERONAUTICAL AND ASTRONAUTICAL							
ENGINEERS	2	2	6	6	6	6	6
CHEMICAL ENGINEERS	1	3	14	17	15	13	17
CIVIL ENGINEERS	1	3	4	5	7	4	8
ELECTRICAL ENGINEERS	14	21	41	45	51	58	76
MECHANICAL ENGINEERS	16	19	23	22	23	22	28
OTHER ENGINEERS	26	29	75	78	82	82	42
PHYSICAL SCIENTISTS	249	300	258	269	278	272	298
ASTRONOMERS 2/	-	-	9	9	7	9	17
CHEMISTS	107	104	116	122	131	124	134
PHYSICISTS	89	107	108	110	123	123	133
OTHER PHYSICAL SCIENTISTS	53	89	25	20	17	16	14
ENVIRONMENTAL SCIENTISTS	27	37	75	92	89	99	95
ATMOSPHERIC SCIENTISTS	8	9	2	16	15	21	19
EARTH SCIENTISTS	17	25	29	29	26	27	25
OCEANOGRAPHERS	2	3	1	2	2	2	3
OTHER ENVIRONMENTAL SCIENTISTS 2/	-	-	43	44	46	49	48
MATHEMATICAL AND COMPUTER SCIENTISTS	219	251	250	277	314	290	366
MATHEMATICIANS	88	153	122	125	144	126	167
COMPUTER SCIENTISTS	131	98	128	152	170	164	199
LIFE SCIENTISTS	133	140	193	201	195	202	210
AGRICULTURAL SCIENTISTS	0	0	1	0	1	0	0
BIOLOGICAL SCIENTISTS	120	110	139	150	140	147	142
MEDICAL SCIENTISTS	13	30	11	9	10	13	30
OTHER LIFE SCIENTISTS 2/	-	-	42	42	44	42	38
PSYCHOLOGISTS	3	2	0	2	1	2	11
SOCIAL SCIENTISTS	14	11	8	14	12	10	48
ECONOMISTS	6	5	4	6	7	4	15
POLITICAL SCIENTISTS	0	0	1	1	0	2	3
SOCIOLOGISTS	1	0	1	1	1	0	5
OTHER SOCIAL SCIENTISTS	7	6	2	5	4	4	25

1/ DATA WERE NOT COLLECTED IN 1979.
2/ DATA NOT AVAILABLE PRIOR TO 1980.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-78. -- SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITY-ADMINISTERED FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTERS BY FIELD: JANUARY 1984

INSTITUTIONAL RANKING	TOTAL	ENGI- NEERING	PHYSICAL SCIENCES	ENVIRON- MENTAL SCIENCES	MATH & COMPUTER SCIENCES	LIFE SCIENCES	PSY- CHOL- OGY	SOCIAL SCIENCES
TOTAL, ALL INSTITUTIONS	15,213	5,991	5,681	773	1,746	794	36	192
1 LOS ALAMOS NATIONAL LAB (UNIV OF CALIFORNIA)	3,066	1,000	1,534	81	290	155	0	6
2 LAWRENCE LIVERMORE LAB (UNIV OF CALIFORNIA)	2,815	1,112	1,065	105	455	78	0	0
3 JET PROPULSION LABORATORY (CALIFORNIA INST OF TECH)	2,492	1,339	591	43	362	46	30	81
4 ARGONNE NATL LABORATORY (UNIV OF CHICAGO)	1,979	778	743	171	89	184	0	14
5 LINCOLN LABORATORY (MASS INST OF TECHNOLOGY)	1,083	764	208	0	110	0	1	0
6 BROOKHAVEN NAT'L LAB (AUT) 1/	1,060	308	423	38	99	182	0	10
7 LAWRENCE BERKELEY LAB (UNIV OF CALIFORNIA)	738	92	343	142	58	103	0	0
8 FERMI NAT ACCELERATOR LAB (URA) 2/	391	121	255	0	15	0	0	0
9 NATL CTR ATMOSPHERIC RES (UCAR) 3/	333	57	0	185	91	0	0	0
10 STFRD LINEAR ACCELTR CTR (STANFORD UNIVERSITY)	271	117	130	0	24	0	0	0
TOTAL, 1ST 10 INSTS.	14,228	5,688	5,292	765	1,593	748	31	111
11 PLASMA PHYSICS LABORATORY (PRINCETON UNIV)	263	148	97	0	18	0	0	0
12 CENTER FOR NAVAL ANALYSES (UNIV OF ROCHESTER)	179	22	47	0	53	0	5	52
13 AMES LABORATORY (IOWA STATE UNIV OF SAT)	156	49	95	0	12	0	0	0
14 OAK RIDGE INST NUCLR STDS (ORAU) 5/	127	9	29	4	10	46	0	29
15 NAT'L RADIO ASTRONOMY OBS (AUI) 1/	104	37	42	0	25	0	0	0
16 KITT PEAK NAT'L OBSERVTRY (AURA) 4/	78	21	36	0	21	0	0	0
17 NAT'L ASTRON & IOMOS CTR (CORNELL UNIVERSITY)	38	16	13	4	5	0	0	0
18 SACRAMENTO PEAK OBSERVTRY (AURA) 4/	27	1	19	0	7	0	0	0
19 CERRO TOLOLO I"TER-AM OBS (AURA) 4/	13	0	11	0	2	0	0	0
TOTAL, 1ST 19 INSTS.	15,213	5,991	5,681	773	1,746	794	36	192

- 1/ ASSOCIATED UNIVERSITIES, INC.
2/ UNIVERSITIES RESEARCH ASSOCIATION
3/ UNIVERSITY CORPORATION FOR ATMOSPHERIC RESEARCH
4/ ASSOCIATION OF UNIVERSITIES FOR RESEARCH IN ASTRONOMY, INC.
5/ OAK RIDGE ASSOCIATED UNIVERSITIES

NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED.
DASHES INDICATE THAT DATA ARE NOT AVAILABLE; DASHES FOLLOWED BY "C" INDICATE CONFIDENTIAL DATA.
SOURCE: NATIONAL SCIENCE FOUNDATION

survey summaries

	page		page		page
All Institutions		Master's-Granting Institutions		No Science/Engineering Degree-Granting Institutions and 2-Year Institutions	
A1A. From 1,123 institutions	77	A1G. From 206 institutions	83	A1M. From 310 institutions	89
A1B. From 699 public institutions	78	A1H. From 139 public institutions	84	A1N. From 282 public institutions	90
A1C. From 424 private institutions	79	A1I. From 67 private institutions	85	A1O. From 28 private institutions	91
Doctorate-Granting Institutions		Bachelor's-Granting Institutions		Federally Funded Research and Development Centers	
A1D. From 326 institutions	80	A1J. From 277 institutions	86	A1P. From 19 FFRDC's	92
A1E. From 193 public institutions	81	A1K. From 78 public institutions	87		
A1F. From 133 private institutions	82	A1L. From 199 private institutions	88		

TABLE A1A

**SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1984
ALL UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES**

SCIENTISTS AND ENGINEERS, JANUARY 1984 AND JANUARY 1983

ITEM 1. HIGHEST EARNED DEGREE		TOTAL		FULL TIME		PART TIME	
		1984	1983	1984	1983	1984	1983
DOCTOR'S	2210	176976	172777	156594	153082	20382	19695
FIRST PROFESSIONAL	2220	55048	53702	37958	36394	17090	17308
MASTER'S	2230	96839	94311	61358	61049	35481	33262
BACHELOR'S OR THE EQUIVALENT	2240	41587	38139	25651	23567	15936	14572
TOTAL	2200	370450	358929	281561	274092	88889	84837

ITEM 2. DISCIPLINES		TOTAL		FULL TIME		PART TIME		MEN		WOMEN	
		1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
ENGINEERS (TOTAL)	2610	29435	28844	9580	8893	28326	27833	9080	8444	1109	1011
AERONAUTICAL & ASTRONAUTICAL	2611	1138	1089	256	238	1115	1066	242	226	23	23
CHEMICAL ENGINEERS	2612	2043	1951	417	459	1930	1854	386	419	113	97
CIVIL ENGINEERS	2613	4884	4987	1373	1434	4676	4779	1278	1355	208	208
ELECTRICAL ENGINEERS	2614	7303	7188	3132	2426	7109	7021	3003	2351	194	167
MECHANICAL ENGINEERS	2615	5411	5112	1661	1616	5313	5019	1614	1564	98	93
OTHER ENGINEERS	2616	8656	8517	2741	2720	8183	8094	2557	2529	473	423
PHYSICAL SCIENTISTS (TOTAL)	2620	29030	28514	6491	6264	26143	25818	9078	8895	2887	2696
ASTRONOMERS	2621	952	882	241	213	881	813	204	184	71	69
CHEMISTS	2622	15133	14845	3688	3483	13116	12881	2569	2443	2017	1964
PHYSICISTS	2623	11531	11426	2115	2160	10951	10904	1922	1939	580	522
OTHER PHYSICAL SCIENTISTS	2624	1414	1361	447	408	1195	1220	383	329	219	141
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	8933	8691	1691	1442	8097	7870	1260	1155	836	821
ATMOSPHERIC SCIENTISTS	2631	805	887	170	177	751	817	138	154	54	70
EARTH SCIENTISTS	2632	5713	5549	1033	943	5261	5108	755	761	452	461
OCEANOGRAPHERS	2633	153C	1528	229	159	1297	1325	171	118	241	203
OTHER ENVIRONMENTAL SCIENTISTS	2634	877	707	259	163	788	620	196	122	89	87
MATHEMATICAL SCIENTISTS (TOTAL)	2640	31940	29941	17342	15725	25972	24615	12221	11430	5968	5326
MATHEMATICIANS	2641	21407	21075	10840	10245	17516	17361	7038	6909	3891	3714
COMPUTER SCIENTISTS	2642	10533	8846	6502	5480	8456	7254	5183	4521	2077	1612
LIFE SCIENTISTS (TOTAL)	2650	122689	119615	33590	31825	88764	88375	22953	22409	33925	31240
AGRICULTURAL SCIENTISTS	2651	15572	15331	1443	1401	13764	13716	1059	1036	1808	1615
BIOLOGICAL SCIENTISTS	2652	41579	41152	6979	6932	31726	31546	4164	4202	9853	9606
MEDICAL SCIENTISTS	2653	54506	53758	21379	20628	40443	40353	16519	16164	14063	13405
OTHER LIFE SCIENTISTS	2654	11032	9374	3789	2864	2831	2760	1211	1007	8201	6614
PSYCHOLOGISTS (TOTAL)	2660	17087	16856	6880	6916	12596	12379	4039	4161	4491	4477
SOCIAL SCIENTISTS (TOTAL)	2670	42447	41631	13315	13752	34357	33677	9551	10076	8090	7954
ECONOMISTS	2671	12122	11599	3725	3972	10803	10373	3144	3435	1319	1226
POLITICAL SCIENTISTS	2672	9139	9123	2479	2647	7898	7881	1937	2113	1241	1242
SOCIOLOGISTS	2673	10208	10485	3322	3583	7497	7613	1890	2183	2711	2872
OTHER SOCIAL SCIENTISTS	2674	10978	10424	3789	3550	8159	7810	2580	2345	2819	2614
TOTAL	2600	281561	274092	88889	84837	224255	220567	64182	62570	57306	53525

ITEM 3. DISCIPLINES		TOTAL		FULL TIME		PART TIME		TOTAL FTE'S		FTE'S DEVOTED TO R&D		% TOTAL FTE'S DEVOTED TO R&D	
		1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
ENGINEERS (TOTAL)	2710	39015	37737	29435	28844	9580	8893	35978	32093	7159	7049	19.9	22.0
AERONAUTICAL & ASTRONAUTICAL	2711	1394	1327	1138	1089	256	238	1236	1157	320	323	25.9	27.9
CHEMICAL ENGINEERS	2712	2460	2410	2043	1951	417	459	2180	2114	570	535	26.1	25.3
CIVIL ENGINEERS	2713	6297	6421	4884	4987	1373	1434	5646	5558	829	770	14.7	13.9
ELECTRICAL ENGINEERS	2714	10435	9614	7303	7188	3132	2426	9929	8060	1989	1902	20.0	23.6
MECHANICAL ENGINEERS	2715	7072	6728	5411	5112	1661	1616	6786	5685	941	892	13.9	15.7
OTHER ENGINEERS	2716	11397	11237	8656	8517	2741	2720	10203	9520	2510	2628	24.6	27.6
PHYSICAL SCIENTISTS (TOTAL)	2720	39521	34778	29030	28514	6491	6264	31818	31211	7530	7113	23.7	22.8
ASTRONOMERS	2721	1193	1095	952	882	241	213	1046	961	445	405	42.5	42.1
CHEMISTS	2722	18821	18328	15133	14845	3688	3483	16739	16395	3278	3094	19.6	18.9
PHYSICISTS	2723	13646	13586	11531	11426	2115	2160	12371	12314	3099	3062	25.1	24.9
OTHER PHYSICAL SCIENTISTS	2724	1861	1769	1414	1361	447	408	1662	1541	709	552	42.7	35.8
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	10624	10153	8933	8691	1691	1442	9615	9346	3053	3044	31.8	32.6
ATMOSPHERIC SCIENTISTS	2731	975	1064	805	887	170	177	843	970	485	545	56.2	56.2
EARTH SCIENTISTS	2732	6746	6532	5713	5549	1033	943	6122	6002	1286	1300	21.0	21.7
OCEANOGRAPHERS	2733	1767	1687	1538	1528	229	159	1617	1599	980	964	60.6	60.3
OTHER ENVIRONMENTAL SCIENTISTS	2734	1136	870	877	707	259	163	1012	775	302	236	29.8	30.5
MATHEMATICAL SCIENTISTS (TOTAL)	2740	49282	45644	31940	29941	17342	15725	39023	36253	2298	2208	5.9	6.1
MATHEMATICIANS	2741	32247	31320	21407	21075	10840	10245	25963	25353	1281	1312	4.9	5.2
COMPUTER SCIENTISTS	2742	17035	14346	10533	8846	6502	5480	13040	10901	1017	896	7.8	8.2
LIFE SCIENTISTS (TOTAL)	2750	156279	151440	122689	119615	33590	31825	135211	131153	36807	36020	27.2	27.5
AGRICULTURAL SCIENTISTS	2751	17015	16732	15572	15331	1443	1401	15998	16065	6701	6559	41.9	40.8
BIOLOGICAL SCIENTISTS	2752	48558	48084	41579	41152	6979	6932	44726	44155	13907	13229	31.1	30.0
MEDICAL SCIENTISTS	2753	75885	74386	54506	53758	21379	20628	61872	60606	15451	15534	25.0	25.6
OTHER LIFE SCIENTISTS	2754	14821	12238	11032	9374	3789	2864	12614	10327	747	697	5.9	6.7
PSYCHOLOGISTS (TOTAL)	2760	23967	23772	17087	16856	6880	6916	20553	19441	1395	1482	6.8	7.6
SOCIAL SCIENTISTS (TOTAL)	2770	55762	55383	42447	41631	13315	13752	48093	46944	3614	3678	7.5	7.8
ECONOMISTS	2771	15847	15571	12122	11599	3725	3972	13494	13097	1221	1204	9.0	9.2
POLITICAL SCIENTISTS	2772	11618	11770	9139	9123	2479	2647	10167	10132	552	672	5.4	6.6
SOCIOLOGISTS	2773	13530	14068	10208	10485	3322	3583	12082	11926	606	650	5.0	5.5
OTHER SOCIAL SCIENTISTS	2774	14767	13974	10978	10424	3789	3550	12349	11789	1235	1152	10.0	9.8
TOTAL	2700	370450	358929	281561	274092	88889	84837	320292	306442	61855	60594	19.3	19.8

TABLE A18

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1984
PUBLIC UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1984 AND JANUARY 1983

ITEM 1. HIGHEST EARNED DEGREE		TOTAL		FULL TIME		PART TIME	
		1984	1983	1984	1983	1984	1983
DOCTOR'S	2210	119561	116491	107535	105133	12026	11358
FIRST PROFESSIONAL	2220	28536	27421	19820	19025	8716	8396
MASTER'S	2230	74702	72332	49739	48883	24963	23449
BACHELOR'S OR THE EQUIVALENT	2240	32025	30085	19640	18392	12365	11693
TOTAL	2200	254824	246329	196754	191433	58070	54896

ITEM 2. DISCIPLINES		TOTAL				MEN				WOMEN			
		FULL TIME		PART TIME		FULL TIME		PART TIME		FULL TIME		PART TIME	
		1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
ENGINEERS (TOTAL)	2610	21996	21214	6568	6328	21151	20448	6190	5984	845	766	378	344
AERONAUTICAL & ASTRONAUTICAL	2611	753	679	142	146	740	664	136	140	13	15	6	6
CHEMICAL ENGINEERS	2612	1499	1391	293	300	1412	1314	269	282	87	77	24	18
CIVIL ENGINEERS	2613	4043	4022	1028	1073	3867	3860	944	1011	176	162	84	62
ELECTRICAL ENGINEERS	2614	4750	4576	1729	1545	4624	4572	1651	1489	126	104	78	56
MECHANICAL ENGINEERS	2615	4008	3717	1159	1078	3940	3650	1122	1036	68	67	37	42
OTHER ENGINEERS	2616	6943	6729	2217	2186	6568	6388	2068	2026	375	341	149	160
PHYSICAL SCIENTISTS (TOTAL)	2620	19066	18750	4630	4205	17285	17046	3646	3300	1781	1704	984	905
ASTRONOMERS	2621	682	613	187	138	629	567	160	121	53	46	27	17
CHEMISTS	2622	9851	9708	2660	2410	8662	8491	1875	1708	1189	1217	785	702
PHYSICISTS	2623	7455	7434	1422	1361	7091	7098	1292	1225	364	336	130	136
OTHER PHYSICAL SCIENTISTS	2624	1078	995	361	296	903	890	319	246	175	105	42	50
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	7102	6999	1322	1124	6455	6365	988	892	647	634	334	232
ATMOSPHERIC SCIENTISTS	2631	722	785	162	151	672	721	133	130	50	64	29	21
EARTH SCIENTISTS	2632	4519	4468	760	709	4174	4113	558	567	345	355	202	142
OCEANOGRAPHERS	2633	1167	1162	187	134	984	1017	137	100	183	145	50	34
OTHER ENVIRONMENTAL SCIENTISTS	2634	694	584	213	130	625	514	160	95	68	70	53	25
MATHEMATICAL SCIENTISTS (TOTAL)	2640	23931	22202	12312	11462	19380	18151	8495	8193	4551	4051	3817	3269
MATHEMATICIANS	2641	16052	15592	7914	7531	13142	12809	5025	4961	2910	2783	2889	2570
COMPUTER SCIENTISTS	2642	7879	6610	4398	3931	6238	5342	3470	3232	1641	1268	928	699
LIFE SCIENTISTS (TOTAL)	2650	82457	80708	20725	19000	59156	59242	13280	12600	23301	21466	7445	6400
AGRICULTURAL SCIENTISTS	2651	14942	14710	1357	1352	13209	13161	983	996	1733	1549	374	356
BIOLOGICAL SCIENTISTS	2652	26811	26870	4733	4592	20726	20833	2775	2796	6085	6037	1958	1796
MEDICAL SCIENTISTS	2653	32091	31830	11787	10902	22982	23006	8578	8020	9109	8824	3209	2882
OTHER LIFE SCIENTISTS	2654	8613	7298	2848	2154	2239	2242	944	788	6374	5056	1904	1366
PSYCHOLOGISTS (TOTAL)	2660	11797	11808	4117	4103	8641	8719	2340	2416	3156	3089	1777	1687
SOCIAL SCIENTISTS (TOTAL)	2670	30405	29752	8396	8674	24663	24111	5984	6287	5742	5641	2412	2385
ECONOMISTS	2671	8140	7831	2165	2267	7304	7016	1806	1935	836	815	359	332
POLITICAL SCIENTISTS	2672	6174	6172	1555	1525	5331	5342	1198	1204	843	830	357	321
SOCIOLOGISTS	2673	7289	7440	2090	2291	5413	5440	1229	1403	1876	2000	861	888
OTHER SOCIAL SCIENTISTS	2674	8802	8309	2586	2591	6615	6313	1751	1747	2187	1996	835	844
TOTAL	2600	196754	191433	58070	54896	156731	154082	40923	39674	40023	37351	17147	15222

ITEM 3. DISCIPLINES		TOTAL		FULL TIME		PART TIME		TOTAL FTE'S		FTE'S DEVOTED TO R&D		% TOTAL FTE'S DEVOTED TO R&D	
		1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
ENGINEERS (TOTAL)	2710	28564	27542	21996	21214	6568	6328	27565	23683	4135	4006	15.0	16.9
AERONAUTICAL & ASTRONAUTICAL	2711	895	825	753	679	142	146	821	724	144	141	17.5	19.5
CHEMICAL ENGINEERS	2712	1792	1691	1499	1391	293	300	1600	1512	389	341	24.3	22.4
CIVIL ENGINEERS	2713	5071	5095	4043	4022	1028	1073	4693	4467	634	544	13.5	12.1
ELECTRICAL ENGINEERS	2714	6479	6221	4750	4676	1729	1545	6918	5278	765	755	11.1	14.3
MECHANICAL ENGINEERS	2715	5167	4795	4008	3717	1159	1078	5225	4123	492	462	9.4	11.2
OTHER ENGINEERS	2716	9160	8915	6943	6729	2217	2186	8308	7578	1713	1762	20.6	23.3
PHYSICAL SCIENTISTS (TOTAL)	2720	23696	22955	19066	18750	4630	4205	21173	20600	4523	4100	21.4	19.9
ASTRONOMERS	2721	869	751	682	613	187	138	754	663	297	260	39.4	39.2
CHEMISTS	2722	12511	12118	9851	9708	2660	2410	11069	10797	1935	1787	17.5	16.6
PHYSICISTS	2723	8877	8795	7455	7434	1422	1361	8049	8009	1705	1643	21.2	20.5
OTHER PHYSICAL SCIENTISTS	2724	1439	1291	1078	995	361	296	1301	1131	586	410	45.0	36.3
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	8424	8123	7102	6999	1322	1124	7629	7488	2361	2373	30.9	31.7
ATMOSPHERIC SCIENTISTS	2731	884	936	722	785	162	151	778	859	442	489	56.8	56.9
EARTH SCIENTISTS	2732	5279	5177	4519	4468	760	709	4816	4776	988	1013	20.5	21.2
OCEANOGRAPHERS	2733	1354	1296	1167	1162	187	134	1227	1219	678	668	55.3	54.8
OTHER ENVIRONMENTAL SCIENTISTS	2734	907	714	694	584	213	130	808	635	253	203	31.3	32.0
MATHEMATICAL SCIENTISTS (TOTAL)	2740	36243	33664	23931	22202	12312	11462	29009	26745	1286	1167	4.4	4.4
MATHEMATICIANS	2741	23966	23123	16052	15592	7914	7531	19439	18733	671	643	3.5	3.4
COMPUTER SCIENTISTS	2742	12277	10541	7879	6610	4398	3931	9570	8012	615	524	6.4	6.5
LIFE SCIENTISTS (TOTAL)	2750	103182	99708	82457	80708	20725	19000	90290	87445	24234	23809	26.8	27.2
AGRICULTURAL SCIENTISTS	2751	16299	16062	14942	14710	1357	1352	15330	15416	6499	6349	42.4	41.2
BIOLOGICAL SCIENTISTS	2752	31544	31462	26811	26870	4733	4592	28974	28798	8166	7801	28.2	27.1
MEDICAL SCIENTISTS	2753	43878	42732	32091	31830	11787	10902	36136	35265	9065	9192	25.1	26.1
OTHER LIFE SCIENTISTS	2754	11461	9452	8613	7298	2848	2154	9851	7966	504	468	5.1	5.9
PSYCHOLOGISTS (TOTAL)	2760	15914	15911	11797	11808	4117	4103	14223	13327	865	865	6.1	6.5
SOCIAL SCIENTISTS (TOTAL)	2770	38801	38426	30405	29752	8396	8674	34218	33079	2696	2549	7.9	7.7
ECONOMISTS	2771	10305	10098	8140	7831	2165	2267	8907	8664	957	900	10.7	10.4
POLITICAL SCIENTISTS	2772	7729	7697	6174	6172	1555	1525	6871	6779	363	416	5.3	6.1
SOCIOLOGISTS	2773	9379	9731	7289	7440	2090	2291	8674	8351	431	446	5.0	5.3
OTHER SOCIAL SCIENTISTS	2774	11388	10900	8802	8309	2586	2591	9766	9285	945	786	9.7	8.5
TOTAL	2700	254824	246329	196754	191433	58070	54896	224108	212367	40099	38869	17.9	18.3

TABLE A1C

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1984
PRIVATE UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1984 AND JANUARY 1983

ITEM 1. HIGHEST EARNED DEGREE		TOTAL		FULL TIME		PART TIME	
		1984	1983	1984	1983	1984	1983
DOCTOR'S	2210	57415	56286	49059	47949	8356	8337
FIRST PROFESSIONAL	2220	26512	26281	18138	17369	8374	8912
MASTER'S	2230	22137	21979	11619	12166	10518	9813
BACHELOR'S OR THE EQUIVALENT	2240	9562	8054	5991	5175	3571	2879
TOTAL	2200	115626	112600	84807	82659	30819	29941

ITEM 2. DISCIPLINES		TOTAL		FULL TIME		PART TIME		FULL TIME		PART TIME		FULL TIME		PART TIME	
		1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
ENGINEERS (TOTAL)	2610	7439	7630	3012	2565	7175	7385	2890	2460	264	245	122	105		
AERONAUTICAL & ASTRONAUTICAL	2611	385	410	114	92	375	402	106	86	10	8	8	6		
CHEMICAL ENGINEERS	2612	544	560	124	159	518	540	117	137	26	20	7	22		
CIVIL ENGINEERS	2613	841	965	345	361	809	919	334	344	32	46	11	17		
ELECTRICAL ENGINEERS	2614	2553	2512	1403	881	2485	2449	1352	862	68	63	51	19		
MECHANICAL ENGINEERS	2615	1403	1395	502	538	1373	1369	492	528	30	26	10	10		
OTHER ENGINEERS	2616	1713	1788	524	534	1615	1706	489	503	98	82	35	31		
PHYSICAL SCIENTISTS (TOTAL)	2620	9964	9764	1861	2059	8858	8772	1432	1595	1106	992	429	444		
ASTRONOMERS	2621	270	269	54	75	252	246	44	63	18	23	10	12		
CHEMISTS	2622	5282	5137	1028	1073	4454	4390	694	735	828	747	394	338		
PHYSICISTS	2623	4076	3992	693	799	3860	3806	630	714	216	186	63	85		
OTHER PHYSICAL SCIENTISTS	2624	336	366	86	112	292	330	64	83	44	36	22	29		
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	1831	1692	369	338	1642	1505	272	263	189	187	97	75		
ATMOSPHERIC SCIENTISTS	2631	83	102	8	26	79	96	5	24	4	6	3	2		
EARTH SCIENTISTS	2632	1194	1101	273	254	1087	995	197	194	107	106	76	60		
OCEANOGRAPHERS	2633	371	356	42	25	313	308	34	18	58	58	8	7		
OTHER ENVIRONMENTAL SCIENTISTS	2634	183	123	46	33	163	106	36	27	20	17	10	6		
MATHEMATICAL SCIENTISTS (TOTAL)	2640	8009	7739	5030	4263	6592	6464	3726	3237	1417	1275	1304	1026		
MATHEMATICIANS	2641	5355	5483	2926	2714	4374	4552	2013	1948	981	931	913	766		
COMPUTER SCIENTISTS	2642	2654	2256	2104	1549	2218	1912	1713	1289	436	344	391	260		
LIFE SCIENTISTS (TOTAL)	2650	40232	38907	12865	12825	29608	29133	9673	9809	10624	9774	3192	3016		
AGRICULTURAL SCIENTISTS	2651	630	621	86	49	555	555	76	40	75	66	10	9		
BIOLOGICAL SCIENTISTS	2652	14768	14282	2246	2340	11000	10713	1389	1406	3768	3569	857	934		
MEDICAL SCIENTISTS	2653	22415	21928	9592	9726	17461	17347	7941	8144	4954	4581	1651	1582		
OTHER LIFE SCIENTISTS	2654	2419	2076	941	710	592	518	267	219	1827	1558	674	491		
PSYCHOLOGISTS (TOTAL)	2660	5290	5048	2763	2813	3955	3660	1699	1745	1335	1388	1064	1068		
SOCIAL SCIENTISTS (TOTAL)	2670	12042	11879	4919	5078	9694	9566	3567	3787	2348	2313	1352	1291		
ECONOMISTS	2671	3982	3768	1560	1705	3499	3357	1338	1500	483	411	222	205		
POLITICAL SCIENTISTS	2672	2965	2951	924	1122	2567	2539	739	909	398	412	185	213		
SOCIOLOGISTS	2673	2919	3045	1232	1292	2084	2173	661	780	835	872	571	512		
OTHER SOCIAL SCIENTISTS	2674	2176	2115	1203	959	1544	1497	829	598	632	618	374	361		
TOTAL	2600	84807	82659	30819	29941	67524	66485	23259	22896	17283	16174	7560	7045		

ITEM 3. DISCIPLINES		TOTAL		FULL TIME		PART TIME		TOTAL FTE'S		FTE'S DEVOTED TO R&D		% TOTAL FTE'S DEVOTED TO R&D	
		1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
ENGINEERS (TOTAL)	2710	10451	10195	7439	7630	3012	2565	8413	8410	3023	3043	35.9	36.2
AERONAUTICAL & ASTRONAUTICAL	2711	499	502	385	410	114	92	414	432	176	181	42.5	41.8
CHEMICAL ENGINEERS	2712	668	719	544	560	124	159	580	601	182	194	31.4	32.3
CIVIL ENGINEERS	2713	1186	1326	841	965	345	361	952	1091	195	225	20.5	20.6
ELECTRICAL ENGINEERS	2714	3956	3393	2553	2512	1403	881	3011	2782	1224	1147	40.7	41.2
MECHANICAL ENGINEERS	2715	1905	1933	1403	1395	502	538	1561	1562	450	430	28.8	27.5
OTHER ENGINEERS	2716	2237	2322	1713	1788	524	534	1895	1942	797	865	42.1	44.5
PHYSICAL SCIENTISTS (TOTAL)	2720	11825	11823	9964	9764	1861	2059	10645	10611	3008	3013	28.3	28.4
ASTRONOMERS	2721	324	344	270	269	54	75	292	298	148	145	50.7	48.7
CHEMISTS	2722	6310	6210	5282	5137	1028	1073	5670	5598	1343	1307	23.7	23.3
PHYSICISTS	2723	4769	4791	4076	3992	693	799	4322	4305	1395	1419	32.3	33.0
OTHER PHYSICAL SCIENTISTS	2724	422	478	336	366	86	112	361	410	123	142	34.1	34.6
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	2200	2030	1831	1692	369	338	1986	1858	692	672	34.8	36.2
ATMOSPHERIC SCIENTISTS	2731	91	128	83	102	8	26	85	112	43	56	50.6	50.0
EARTH SCIENTISTS	2732	1467	1355	1194	1101	273	254	1307	1227	298	287	22.8	23.4
OCEANOGRAPHERS	2733	413	391	371	366	42	25	390	379	302	296	77.4	78.1
OTHER ENVIRONMENTAL SCIENTISTS	2734	229	156	183	123	46	33	204	140	49	32	24.0	22.9
MATHEMATICAL SCIENTISTS (TOTAL)	2740	13039	12002	8009	7739	5030	4263	10014	9509	1012	1041	10.1	10.9
MATHEMATICIANS	2741	8281	8197	5355	5483	2926	2714	6524	6620	610	669	9.4	10.1
COMPUTER SCIENTISTS	2742	4758	3805	2654	2256	2104	1549	3490	2889	402	372	11.5	12.9
LIFE SCIENTISTS (TOTAL)	2750	53097	51732	40232	38907	12865	12825	44921	43707	12573	12211	28.0	27.9
AGRICULTURAL SCIENTISTS	2751	716	670	630	621	86	49	668	649	202	210	30.2	32.4
BIOLOGICAL SCIENTISTS	2752	17014	16622	14768	14282	2246	2340	15753	15358	5741	5429	36.4	35.3
MEDICAL SCIENTISTS	2753	32007	31654	22415	21928	9592	9726	25736	25340	6386	6342	24.8	25.0
OTHER LIFE SCIENTISTS	2754	3360	2786	2419	2076	941	710	2764	2361	243	229	8.8	9.7
PSYCHOLOGISTS (TOTAL)	2760	8053	7861	5290	5048	2763	2813	6330	6115	530	616	8.4	10.1
SOCIAL SCIENTISTS (TOTAL)	2770	16961	16957	12042	11879	4919	5078	13875	13865	918	1130	6.6	8.2
ECONOMISTS	2771	5542	5473	3982	3768	1560	1705	4587	4433	264	303	5.8	6.8
POLITICAL SCIENTISTS	2772	3889	4073	2965	2951	924	1122	3296	3354	189	256	5.7	7.6
SOCIOLOGISTS	2773	4151	4337	2919	3045	1232	1292	3408	3575	175	204	5.1	5.7
OTHER SOCIAL SCIENTISTS	2774	3379	3074	2176	2115	1203	959	2583	2504	290	366	11.2	14.6
TOTAL	2700	115626	112600	84807	82659	30819	29941	96184	94075	21756	21725	22.6	23.1

TABLE A1D

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1984
DOCTORATE GRANTING UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1984 AND JANUARY 1983

ITEM 1. HIGHEST EARNED DEGREE		TOTAL		FULL TIME		PART TIME	
		1984	1983	1984	1983	1984	1983
DOCTOR'S	2210	127542	125276	114231	112954	13311	12322
FIRST PROFESSIONAL	2220	53371	51611	37079	35463	16292	16148
MASTER'S	2230	37402	36158	27056	26647	10346	9511
BACHELOR'S OR THE EQUIVALENT	2240	29971	23500	19142	17692	6829	5808
TOTAL	2200	244286	236545	197508	192756	46778	43789

ITEM 2. DISCIPLINES		TOTAL		MEN				WOMEN			
		1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
ENGINEERS (TOTAL)	2610	22513	21857	4476	4326	21567	21016	4303	4010	946	841
AERONAUTICAL & ASTRONAUTICAL	2611	917	865	164	140	898	850	155	133	19	15
CHEMICAL ENGINEERS	2612	1888	1734	361	354	1788	1651	231	316	100	83
CIVIL ENGINEERS	2613	3653	3671	812	756	3491	3499	731	694	162	172
ELECTRICAL ENGINEERS	2614	5316	5098	1109	951	5155	4961	1046	911	161	137
MECHANICAL ENGINEERS	2615	3777	3529	746	659	3467	3441	711	633	70	68
OTHER ENGINEERS	2616	7002	6960	1484	1446	6568	6594	1329	1323	434	366
PHYSICAL SCIENTISTS (TOTAL)	2620	17521	17116	2606	2382	16068	15708	2085	1884	1453	1408
ASTRONOMERS	2621	791	700	113	79	735	645	96	65	56	55
CHEMISTS	2622	8365	8243	1420	1286	7399	7284	1042	926	966	939
PHYSICISTS	2623	7572	7399	865	889	7219	7073	775	790	353	326
OTHER PHYSICAL SCIENTISTS	2624	793	774	208	128	715	706	172	103	78	68
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	6472	6309	975	713	5824	5698	714	530	648	611
ATMOSPHERIC SCIENTISTS	2631	742	818	138	111	689	751	108	89	53	67
EARTH SCIENTISTS	2632	3722	3655	526	425	3412	3352	384	334	310	303
OCEANOGRAPHERS	2633	1439	1388	142	116	1213	1200	97	79	226	188
OTHER ENVIRONMENTAL SCIENTISTS	2634	569	448	169	51	510	395	125	28	59	53
MATHEMATICAL SCIENTISTS (TOTAL)	2640	15110	14620	4184	3805	12858	12535	3136	2836	2252	2085
MATHEMATICIANS	2641	9613	9653	2642	2489	8386	8425	1868	1755	1227	1228
COMPUTER SCIENTISTS	2642	5497	4967	1542	1316	4472	4110	1268	1081	1025	857
LIFE SCIENTISTS (TOTAL)	2650	103844	101460	26995	25397	77712	76969	19727	18860	26132	24491
AGRICULTURAL SCIENTISTS	2651	13763	13397	995	843	12112	11930	686	580	1651	1467
BIOLOGICAL SCIENTISTS	2652	31287	30463	3878	3710	23595	23300	2319	2255	7692	7163
MEDICAL SCIENTISTS	2653	52644	51824	20215	19283	39947	39681	15937	15377	12697	12143
OTHER LIFE SCIENTISTS	2654	6150	5776	1907	1561	2058	2058	785	648	4092	3718
PSYCHOLOGISTS (TOTAL)	2660	8566	8291	2300	2195	6458	6186	1383	1361	2108	2105
SOCIAL SCIENTISTS (TOTAL)	2670	23482	23103	5042	4971	18980	18703	3475	3446	4502	4400
ECONOMISTS	2671	7043	6862	1221	1455	6327	6167	1029	1230	716	695
POLITICAL SCIENTISTS	2672	4554	4627	995	1051	3911	3989	779	822	643	638
SOCIOLOGISTS	2673	4816	5014	1052	1125	3585	3643	941	622	1231	1371
OTHER SOCIAL SCIENTISTS	2674	7069	6600	1774	1340	5157	4904	1236	772	1912	1696
TOTAL	2600	197508	192756	46778	43789	159467	156815	34823	32927	38041	35941

ITEM 3. DISCIPLINES		TOTAL		FULL TIME		PART TIME		TOTAL FTE'S		FTE'S DEVOTED TO R&D		% TOTAL FTE'S DEVOTED TO R&D	
		1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
ENGINEERS (TOTAL)	2710	27189	26183	22513	21857	4676	4326	24117	23312	7081	6931	29.4	29.7
AERONAUTICAL & ASTRONAUTICAL	2711	1081	1005	917	865	164	140	944	903	314	316	32.6	35.0
CHEMICAL ENGINEERS	2712	2249	2088	1888	1734	361	354	2008	1853	567	526	28.2	28.4
CIVIL ENGINEERS	2713	4465	4427	3653	3671	812	756	3953	3964	812	753	20.5	19.0
ELECTRICAL ENGINEERS	2714	6425	6049	5316	5098	1109	951	5487	5382	1964	1868	34.5	34.7
MECHANICAL ENGINEERS	2715	4483	4188	3737	3529	746	659	3964	3725	927	863	23.4	23.2
OTHER ENGINEERS	2716	8486	8426	7002	6960	1484	1446	7540	7485	2498	2604	33.1	34.8
PHYSICAL SCIENTISTS (TOTAL)	2720	20127	19498	17521	17116	2606	2382	18426	18033	7073	6797	38.0	37.7
ASTRONOMERS	2721	904	779	791	700	113	79	831	724	439	403	52.8	55.7
CHEMISTS	2722	9785	9529	8365	8243	1420	1286	8991	8766	3070	2916	34.1	33.3
PHYSICISTS	2723	8437	8288	7572	7399	865	889	7878	7707	3003	2969	38.1	38.5
OTHER PHYSICAL SCIENTISTS	2724	1001	902	793	774	208	128	927	836	561	509	60.2	60.9
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	7447	7022	6472	6309	975	713	6857	6625	2931	2933	42.7	44.3
ATMOSPHERIC SCIENTISTS	2731	840	929	742	818	138	111	788	870	482	538	61.2	61.8
EARTH SCIENTISTS	2732	4248	4090	3722	3655	526	425	3928	3847	1201	1238	30.6	32.2
OCEANOGRAPHERS	2733	1581	1504	1439	1388	142	116	1477	1432	960	938	65.0	65.5
OTHER ENVIRONMENTAL SCIENTISTS	2734	738	499	569	448	169	51	665	477	287	219	43.2	45.9
MATHEMATICAL SCIENTISTS (TOTAL)	2740	19294	18425	15110	14620	4184	3805	16671	16045	2127	2020	12.8	12.6
MATHEMATICIANS	2741	12255	12142	9613	9653	2642	2489	10629	10603	1166	1200	11.0	11.3
COMPUTER SCIENTISTS	2742	7039	6283	5497	4967	1542	1316	6042	5442	960	821	15.9	15.1
LIFE SCIENTISTS (TOTAL)	2750	130839	126857	103844	101460	26995	25397	113338	110337	36394	35537	32.1	32.2
AGRICULTURAL SCIENTISTS	2751	14758	14240	13763	13397	995	843	14008	13890	6569	6453	46.9	46.5
BIOLOGICAL SCIENTISTS	2752	35165	34173	31287	30463	3878	3710	33039	31969	13660	12889	41.3	40.3
MEDICAL SCIENTISTS	2753	72859	71107	52644	51824	20215	19283	59557	58259	15440	15518	25.9	26.6
OTHER LIFE SCIENTISTS	2754	8057	7337	6150	5776	1907	1561	6734	6219	725	676	10.8	10.9
PSYCHOLOGISTS (TOTAL)	2760	10866	10486	8566	8291	2300	2195	9465	9028	1302	1385	13.8	15.3
SOCIAL SCIENTISTS (TOTAL)	2770	28524	28074	23482	23103	5042	4971	25311	24864	3353	3429	13.2	13.8
ECONOMISTS	2771	8264	8317	7043	6862	1221	1455	7431	7338	1174	1155	15.8	15.7
POLITICAL SCIENTISTS	2772	5949	5678	4554	4627	995	1051	4899	4983	482	617	9.8	12.4
SOCIOLOGISTS	2773	5868	6139	4816	5014	1052	1125	5213	5423	526	573	10.1	10.6
OTHER SOCIAL SCIENTISTS	2774	8843	7940	7069	6600	1774	1340	7769	7119	1171	1084	15.1	15.2
TOTAL	2700	244286	236545	197508	192756	46778	43789	214385	208243	60260	59032	28.1	28.3

TABLE A1E

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1984
PUBLIC DOCTORATE GRANTING UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1984 AND JANUARY 1983

ITEM 1. HIGHEST EARNED DEGREE		TOTAL		FULL TIME		PART TIME	
		1984	1983	1984	1983	1984	1983
DOCTOR'S	2210	88520	87153	80598	80102	7922	7051
FIRST PROFESSIONAL	2220	27378	26131	19099	18366	8279	7765
MASTER'S	2230	29132	27765	22099	21527	7033	6238
BACHELOR'S OR THE EQUIVALENT	2240	19276	17895	14271	13533	5005	4362
TOTAL	2200	164306	158944	136067	133528	28239	25416

ITEM 2. DISCIPLINES		TOTAL		FULL TIME		PART TIME		MEN		WOMEN	
		1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
ENGINEERS (TOTAL)	2610	16059	15539	2910	2630	15358	14909	2637	2406	701	630
AERONAUTICAL & ASTRONAUTICAL	2611	577	518	74	62	568	509	73	61	9	9
CHEMICAL ENGINEERS	2612	1365	1238	264	230	1290	1172	240	213	75	66
CIVIL ENGINEERS	2613	2957	2916	569	520	2824	2788	498	472	133	128
ELECTRICAL ENGINEERS	2614	3152	3040	490	391	3057	2957	458	369	95	83
MECHANICAL ENGINEERS	2615	2612	2480	455	368	2564	2430	430	348	48	50
OTHER ENGINEERS	2616	5396	5347	1058	1059	5055	5053	938	943	341	294
PHYSICAL SCIENTISTS (TOTAL)	2620	11472	11235	1857	1516	10515	10309	1475	1178	957	926
ASTRONOMERS	2621	561	477	61	35	519	440	71	27	42	37
CHEMISTS	2622	5534	5533	1077	906	4914	4900	787	648	620	633
PHYSICISTS	2623	4846	4723	549	501	4608	4515	489	442	238	208
OTHER PHYSICAL SCIENTISTS	2624	531	502	150	74	474	454	128	61	57	48
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	5104	5060	777	561	4606	4585	572	417	498	475
ATMOSPHERIC SCIENTISTS	2631	644	720	133	99	617	659	106	79	49	61
EARTH SCIENTISTS	2632	2915	2933	391	328	2686	2699	285	252	229	234
OCEANOGRAPHERS	2633	1072	1030	118	99	904	898	81	69	168	132
OTHER ENVIRONMENTAL SCIENTISTS	2634	451	377	135	35	399	329	100	17	52	48
MATHEMATICAL SCIENTISTS (TOTAL)	2640	11344	10863	2480	2204	9558	9213	1720	1524	1786	1650
MATHEMATICIANS	2641	7265	7194	1657	1509	6315	6228	1082	970	950	966
COMPUTER SCIENTISTS	2642	4079	3669	823	695	3243	2985	638	554	836	684
LIFE SCIENTISTS (TOTAL)	2650	68615	67592	16061	14669	51079	51018	10978	10192	17536	16574
AGRICULTURAL SCIENTISTS	2651	13309	12945	976	832	11714	11529	675	574	1595	1416
BIOLOGICAL SCIENTISTS	2652	19830	19676	2549	2414	15153	15217	1459	1417	4677	4459
MEDICAL SCIENTISTS	2653	30648	30427	10956	10161	22668	22626	8195	7666	7980	7801
OTHER LIFE SCIENTISTS	2654	4828	4544	1580	1262	1544	1646	649	535	3284	2898
PSYCHOLOGISTS (TOTAL)	2660	5900	5928	1178	1026	4390	4474	686	614	1510	1454
SOCIAL SCIENTISTS (TOTAL)	2670	17573	17311	2976	2810	14187	13954	1954	1830	3386	3357
ECONOMISTS	2671	5141	5018	690	729	4614	4497	563	579	527	521
POLITICAL SCIENTISTS	2672	3209	3227	541	506	2745	2775	409	374	464	452
SOCIOLOGISTS	2673	3665	3854	642	684	2742	2790	395	377	923	1046
OTHER SOCIAL SCIENTISTS	2674	5558	5212	1103	891	4086	3892	647	500	1472	1320
TOTAL	2600	136067	133528	28239	25416	109693	108462	20022	18161	26374	25066

ITEM 3. DISCIPLINES		TOTAL		FULL TIME		PART TIME		TOTAL FTE'S		FTE'S DEVOTED TO R&D		% TOTAL FTE'S DEVOTED TO R&D	
		1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
ENGINEERS (TOTAL)	2710	18969	18169	16059	15539	2910	2630	17140	16568	4087	3935	23.8	23.8
AERONAUTICAL & ASTRONAUTICAL	2711	651	580	577	518	74	62	604	536	139	137	23.0	25.6
CHEMICAL ENGINEERS	2712	1629	1468	1365	1238	264	230	1456	1333	385	336	26.4	25.2
CIVIL ENGINEERS	2713	3526	3436	2957	2916	569	520	3189	3145	620	533	19.4	16.9
ELECTRICAL ENGINEERS	2714	3642	3431	3152	3040	490	391	3320	3179	755	737	22.7	23.2
MECHANICAL ENGINEERS	2715	3067	2848	2612	2480	455	368	2782	2611	482	443	17.3	17.0
OTHER ENGINEERS	2716	6454	6406	5396	5347	1058	1059	5789	5765	1705	1750	29.5	30.4
PHYSICAL SCIENTISTS (TOTAL)	2720	13329	12751	11472	11235	1857	1516	12351	11904	4181	3893	33.9	32.7
ASTRONOMERS	2721	642	512	561	477	81	35	588	484	297	258	50.5	53.3
CHEMISTS	2722	6611	6439	5534	5533	1077	906	6052	5944	1789	1676	29.6	28.2
PHYSICISTS	2723	5395	5228	4846	4723	549	501	5059	4930	1656	1591	32.7	32.3
OTHER PHYSICAL SCIENTISTS	2724	681	576	531	502	150	74	652	546	439	367	67.3	67.2
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	5881	5621	5104	5060	777	561	5407	5312	2245	2269	41.5	42.7
ATMOSPHERIC SCIENTISTS	2731	799	819	664	720	133	99	711	769	439	483	61.7	62.8
EARTH SCIENTISTS	2732	3306	3261	2915	2933	391	328	3065	3079	905	953	29.5	31.0
OCEANOGRAPHERS	2733	1190	1129	1072	1030	118	99	1100	1066	662	646	60.2	60.6
OTHER ENVIRONMENTAL SCIENTISTS	2734	986	612	451	377	135	35	531	397	238	187	44.8	47.1
MATHEMATICAL SCIENTISTS (TOTAL)	2740	13824	13067	11344	10863	2480	2204	12327	11699	1144	1034	9.3	8.8
MATHEMATICIANS	2741	8922	8703	7265	7194	1657	1509	7932	7778	575	566	7.2	7.3
COMPUTER SCIENTISTS	2742	4902	4364	4079	3669	823	695	4395	3921	569	468	12.9	11.9
LIFE SCIENTISTS (TOTAL)	2750	84676	82261	68615	67592	16061	14669	74180	72476	23903	23435	32.2	32.3
AGRICULTURAL SCIENTISTS	2751	14285	13777	13309	12945	976	832	13540	13430	6370	6249	47.0	46.9
BIOLOGICAL SCIENTISTS	2752	22379	22090	19830	19676	2549	2414	20989	20579	7996	7556	38.1	36.7
MEDICAL SCIENTISTS	2753	41604	40588	30648	30427	10956	10161	34309	33593	9056	9181	26.4	27.3
OTHER LIFE SCIENTISTS	2754	6408	5806	4828	4544	1580	1262	5342	4875	481	449	9.0	9.2
PSYCHOLOGISTS (TOTAL)	2760	7078	6954	5900	5928	1178	1026	6358	6263	794	794	12.5	12.7
SOCIAL SCIENTISTS (TOTAL)	2770	20549	20121	17573	17311	2976	2810	18690	18300	2474	2360	13.2	12.9
ECONOMISTS	2771	5831	5747	5141	5018	690	729	5362	5250	922	868	17.2	16.5
POLITICAL SCIENTISTS	2772	3750	3733	3209	3227	541	506	3407	3418	304	376	8.9	11.0
SOCIOLOGISTS	2773	4307	4538	3665	3854	642	684	3905	4091	365	386	9.3	9.4
OTHER SOCIAL SCIENTISTS	2774	6661	6103	5558	5212	1103	891	6016	5542	882	729	14.7	13.2
TOTAL	2700	164306	158944	136067	133528	28239	25416	146453	142523	38828	37719	26.5	26.5

TABLE A1F

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1984
PRIVATE DOCTORATE GRANTING UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1984 AND JANUARY 1983

ITEM 1. HIGHEST EARNED DEGREE		TOTAL		FULL TIME		PART TIME	
		1984	1983	1984	1983	1984	1983
DOCTOR'S	2210	39022	38123	33633	32852	5389	5271
FIRST PROFESSIONAL	2220	25993	25480	17980	17097	8013	8383
MASTER'S	2230	8270	8393	4957	5120	3313	3273
BACHELOR'S OR THE EQUIVALENT	2240	6695	5605	4871	4159	1824	1446
TOTAL	2200	79980	77601	61441	59228	18539	18373

ITEM 2. DISCIPLINES		TOTAL		FULL TIME		PART TIME		MEN		WOMEN	
		1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
ENGINEERS (TOTAL)	2610	6454	6318	1766	1696	6209	6107	1666	1604	245	211
AERONAUTICAL & ASTRONAUTICAL	2611	340	347	90	78	330	341	82	72	10	6
CHEMICAL ENGINEERS	2612	523	496	97	124	498	479	91	103	25	17
CIVIL ENGINEERS	2613	696	755	243	236	667	711	233	222	29	44
ELECTRICAL ENGINEERS	2614	2164	2098	619	560	2098	2004	588	542	66	54
MECHANICAL ENGINEERS	2615	1125	1049	291	291	1103	1031	281	285	22	18
OTHER ENGINEERS	2616	1606	1613	426	407	1513	1541	391	380	93	72
PHYSICAL SCIENTISTS (TOTAL)	2620	6049	5881	749	866	5953	5399	610	706	496	482
ASTRONOMERS	2621	230	223	32	44	216	205	25	38	14	18
CHEMISTS	2622	2831	2710	343	380	2485	2384	255	278	346	326
PHYSICISTS	2623	2726	2676	316	388	2611	2558	286	348	115	118
OTHER PHYSICAL SCIENTISTS	2624	262	272	58	54	241	252	44	42	21	20
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	1368	1249	198	152	1218	1113	142	113	150	136
ATMOSPHERIC SCIENTISTS	2631	76	98	5	12	72	92	2	10	4	6
EARTH SCIENTISTS	2632	807	722	135	107	726	653	99	82	81	69
OCEANOGRAPHERS	2633	367	358	24	17	309	302	16	10	58	56
OTHER ENVIRONMENTAL SCIENTISTS	2634	118	71	34	16	111	66	25	11	7	5
MATHEMATICAL SCIENTISTS (TOTAL)	2640	3766	3757	1704	1601	3300	3322	1416	1312	466	435
MATHEMATICIANS	2641	2348	2459	985	980	2071	2197	786	785	277	262
COMPUTER SCIENTISTS	2642	1418	1298	719	621	1229	1125	630	527	189	173
LIFE SCIENTISTS (TOTAL)	2650	35229	33868	10934	10728	26633	25951	8749	8668	8596	7917
AGRICULTURAL SCIENTISTS	2651	454	452	19	11	398	401	11	6	56	51
BIOLOGICAL SCIENTISTS	2652	11457	10787	1329	1296	8442	8083	860	838	3015	2704
MEDICAL SCIENTISTS	2653	21996	21397	9259	9122	17279	17055	7742	7711	4717	4342
OTHER LIFE SCIENTISTS	2654	1322	1232	327	299	514	412	136	113	808	820
PSYCHOLOGISTS (TOTAL)	2660	2666	2363	1122	1169	2068	1712	407	747	598	651
SOCIAL SCIENTISTS (TOTAL)	2670	5909	5792	2066	2161	4793	4749	1521	1616	1116	1043
ECONOMISTS	2671	1902	1844	531	726	1713	1670	466	651	189	174
POLITICAL SCIENTISTS	2672	1345	1400	454	545	1166	1214	370	448	179	186
SOCIOLOGISTS	2673	1151	1160	410	441	843	853	206	245	308	307
OTHER SOCIAL SCIENTISTS	2674	1511	1388	671	449	1071	1012	479	272	440	376
TOTAL	2600	61441	59228	18539	18373	49774	48353	14801	14766	11667	10875

ITEM 3. DISCIPLINES		TOTAL		FULL TIME		PART TIME		TOTAL FTE'S		FTE'S DEVOTED TO R&D		% TOTAL FTE'S DEVOTED TO R&D	
		1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
ENGINEERS (TOTAL)	2710	8220	8014	6454	6318	1766	1696	6977	6744	2994	2995	42.9	44.4
AERONAUTICAL & ASTRONAUTICAL	2711	430	425	340	347	90	78	360	367	175	179	48.6	48.8
CHEMICAL ENGINEERS	2712	620	620	523	496	97	124	552	521	181	191	32.8	36.7
CIVIL ENGINEERS	2713	939	991	696	755	243	236	763	820	192	220	25.2	26.8
ELECTRICAL ENGINEERS	2714	2783	2618	2164	2098	619	560	2368	2203	1209	1131	51.1	51.3
MECHANICAL ENGINEERS	2715	1416	1340	1125	1049	291	291	1182	1114	445	420	37.6	37.7
OTHER ENGINEERS	2716	2032	2020	1606	1613	426	407	1752	1720	793	855	45.3	49.7
PHYSICAL SCIENTISTS (TOTAL)	2720	6798	6747	6049	5881	749	866	6275	6129	2893	2904	46.1	47.4
ASTRONOMERS	2721	262	267	230	223	32	44	243	240	143	145	58.8	60.4
CHEMISTS	2722	3174	3090	2831	2710	343	380	2939	2823	1280	1240	43.6	43.9
PHYSICISTS	2723	3042	3064	2726	2676	316	388	2819	2776	1347	1378	47.8	49.6
OTHER PHYSICAL SCIENTISTS	2724	320	326	262	272	58	54	275	291	123	142	44.7	48.8
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	1566	1401	1368	1249	198	152	1450	1314	686	664	47.3	50.5
ATMOSPHERIC SCIENTISTS	2731	81	110	76	98	5	12	77	101	43	55	55.8	54.5
EARTH SCIENTISTS	2732	942	829	807	722	135	107	863	768	296	285	34.3	37.1
OCEANOGRAPHERS	2733	391	375	367	358	24	17	376	365	298	293	79.3	80.3
OTHER ENVIRONMENTAL SCIENTISTS	2734	152	87	118	71	34	16	134	79	49	32	36.4	40.5
MATHEMATICAL SCIENTISTS (TOTAL)	2740	5470	5358	3766	3757	1704	1601	4344	4345	983	987	22.6	22.7
MATHEMATICIANS	2741	3333	3439	2348	2459	985	980	2697	2824	592	634	22.0	22.5
COMPUTER SCIENTISTS	2742	2137	1919	1418	1298	719	621	1647	1521	392	353	23.8	23.2
LIFE SCIENTISTS (TOTAL)	2750	46163	44596	35229	33868	10934	10728	39158	37861	12491	12101	31.9	32.0
AGRICULTURAL SCIENTISTS	2751	473	463	454	452	19	11	468	460	199	204	42.5	44.3
BIOLOGICAL SCIENTISTS	2752	12786	12083	11457	10787	1329	1296	12050	11390	5644	5333	47.0	46.8
MEDICAL SCIENTISTS	2753	31255	30519	21996	21397	9259	9122	25248	24646	6384	6337	25.9	25.7
OTHER LIFE SCIENTISTS	2754	1649	1531	1322	1232	327	299	1392	1345	243	227	17.5	16.9
PSYCHOLOGISTS (TOTAL)	2760	3788	3532	2666	2363	1122	1169	3107	2764	507	591	16.3	21.4
SOCIAL SCIENTISTS (TOTAL)	2770	7975	7953	5909	5792	2066	2161	6621	6563	878	1069	13.3	16.3
ECONOMISTS	2771	2433	2570	1902	1844	531	726	2069	2088	251	287	12.1	13.7
POLITICAL SCIENTISTS	2772	1799	1945	1345	1400	454	545	1492	1565	178	240	11.9	15.3
SOCIOLOGISTS	2773	1561	1601	1151	1160	410	441	1308	1333	160	187	12.2	14.0
OTHER SOCIAL SCIENTISTS	2774	2182	1837	1511	1388	671	449	1752	1577	288	355	16.4	22.9
TOTAL	2700	79980	77601	61441	59228	18539	18373	67932	65720	21432	21313	31.5	32.4

TABLE A1G

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1984
MASTER'S GRANTING UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1984 AND JANUARY 1983

ITEM 1. HIGHEST EARNED DEGREE		TOTAL		FULL TIME		PART TIME	
		1984	1983	1984	1983	1984	1983
DOCTOR'S	2210	26482	24108	23673	21204	2809	2904
FIRST PROFESSIONAL	2220	721	607	396	279	325	328
MASTER'S	2230	14391	13150	7570	7370	6821	5780
BACHELOR'S OR THE EQUIVALENT	2240	3149	2800	1183	877	1964	1923
TOTAL	2200	44743	40665	32822	29730	11921	10935

ITEM 2. DISCIPLINES		TOTAL		FULL TIME		PART TIME		FULL TIME		PART TIME	
		1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
ENGINEERS (TOTAL)	2610	2015	2164	1160	1301	1946	2108	1121	1260	69	56
AERONAUTICAL & ASTRONAUTICAL	2611	19	24	18	17	19	23	18	17	0	1
CHEMICAL ENGINEERS	2612	99	120	39	52	97	116	38	51	2	4
CIVIL ENGINEERS	2613	435	472	198	210	408	450	189	203	27	22
ELECTRICAL ENGINEERS	2614	500	598	403	431	489	592	388	416	11	6
MECHANICAL ENGINEERS	2615	410	501	253	319	402	495	246	312	8	6
OTHER ENGINEERS	2616	552	449	249	272	531	432	242	261	21	17
PHYSICAL SCIENTISTS (TOTAL)	2620	4345	3989	1171	1047	3899	3621	887	787	446	368
ASTRONOMERS	2621	86	62	12	17	78	58	9	15	8	4
CHEMISTS	2622	2453	2285	706	568	2144	2008	486	372	309	277
PHYSICISTS	2623	1555	1498	417	402	1490	1440	367	358	65	58
OTHER PHYSICAL SCIENTISTS	2624	251	144	36	60	187	115	25	42	64	29
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	1388	1139	281	268	1279	1042	215	222	109	97
ATMOSPHERIC SCIENTISTS	2631	35	32	13	17	34	31	13	17	1	1
EARTH SCIENTISTS	2632	1133	960	215	194	1053	892	159	160	80	68
OCEANOGRAPHERS	2633	54	46	12	13	42	36	8	11	12	10
OTHER ENVIRONMENTAL SCIENTISTS	2634	166	101	41	44	150	83	35	34	16	18
MATHEMATICAL SCIENTISTS (TOTAL)	2640	6092	5207	3177	2772	4884	4228	2227	2052	1208	979
MATHEMATICIANS	2641	4160	3775	2049	1762	3329	3056	1350	1234	831	719
COMPUTER SCIENTISTS	2642	1932	1432	1128	1010	1555	1172	877	818	377	260
LIFE SCIENTISTS (TOTAL)	2650	6461	5908	1755	1576	4275	4063	860	808	2186	1845
AGRICULTURAL SCIENTISTS	2651	601	667	71	109	537	595	53	84	64	72
BIOLOGICAL SCIENTISTS	2652	3872	3661	841	776	3206	2971	514	446	666	690
MEDICAL SCIENTISTS	2653	386	409	295	269	134	203	157	157	252	206
OTHER LIFE SCIENTISTS	2654	1602	1171	548	422	398	294	136	121	1204	877
PSYCHOLOGISTS (TOTAL)	2660	3774	3492	1572	1352	2849	2594	893	795	925	898
SOCIAL SCIENTISTS (TOTAL)	2670	8747	7831	2805	2619	7108	6359	1992	1941	1639	1472
ECONOMISTS	2671	2339	2055	909	864	2082	1823	755	752	257	232
POLITICAL SCIENTISTS	2672	2025	1909	594	541	1761	1651	442	421	264	258
SOCIOLOGISTS	2673	2451	2179	595	579	1794	1594	339	347	657	585
OTHER SOCIAL SCIENTISTS	2674	1932	1688	707	635	1471	1291	456	421	461	397
TOTAL	2600	32822	29730	11921	10935	26240	24015	8195	7865	6582	5715

ITEM 3. DISCIPLINES		TOTAL		FULL TIME		PART TIME		TOTAL FTE'S		FTE'S DEVOTED TO R&D		% TOTAL FTE'S DEVOTED TO R&D	
		1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
ENGINEERS (TOTAL)	2710	3175	3465	2015	2164	1160	1301	2423	2577	50	80	2.1	3.1
AERONAUTICAL & ASTRONAUTICAL	2711	37	41	19	24	18	17	43	32	2	2	4.7	6.3
CHEMICAL ENGINEERS	2712	138	172	99	120	39	52	110	136	3	8	2.7	5.9
CIVIL ENGINEERS	2713	633	682	435	472	198	210	501	544	15	12	3.0	2.2
ELECTRICAL ENGINEERS	2714	903	1029	500	598	403	431	650	736	12	22	1.8	3.0
MECHANICAL ENGINEERS	2715	663	820	410	501	253	319	484	602	10	21	2.1	3.5
OTHER ENGINEERS	2716	801	721	552	449	249	272	635	525	8	16	1.3	3.0
PHYSICAL SCIENTISTS (TOTAL)	2720	5516	5036	1171	1047	3899	3621	4753	4403	287	195	6.0	4.4
ASTRONOMERS	2721	98	79	12	17	78	58	91	70	5	1	5.5	1.4
CHEMISTS	2722	3159	2853	2453	2285	706	568	2706	2516	109	104	4.0	4.1
PHYSICISTS	2723	1972	1900	1555	1498	417	402	1684	1652	28	48	1.7	2.9
OTHER PHYSICAL SCIENTISTS	2724	287	204	251	144	36	60	271	165	145	42	53.5	25.5
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	1669	1407	1388	1139	281	268	1492	1234	88	83	5.9	6.7
ATMOSPHERIC SCIENTISTS	2731	48	49	35	32	13	17	37	38	3	7	8.1	18.4
EARTH SCIENTISTS	2732	1348	1154	1133	960	215	194	1206	1022	65	53	5.4	5.2
OCEANOGRAPHERS	2733	66	59	54	46	12	13	62	58	13	14	21.0	24.1
OTHER ENVIRONMENTAL SCIENTISTS	2734	207	145	166	101	41	44	188	115	7	10	3.7	8.7
MATHEMATICAL SCIENTISTS (TOTAL)	2740	9269	7979	6092	5207	3177	2772	7317	6294	96	116	1.3	1.8
MATHEMATICIANS	2741	6209	5537	4160	3775	2049	1762	4951	4498	60	67	1.2	1.5
COMPUTER SCIENTISTS	2742	3060	2442	1932	1432	1128	1010	2366	1796	36	49	1.5	2.7
LIFE SCIENTISTS (TOTAL)	2750	8216	7484	6461	5908	1755	1576	7041	6391	212	294	3.0	4.6
AGRICULTURAL SCIENTISTS	2751	672	776	601	667	71	109	623	711	56	74	9.0	10.4
BIOLOGICAL SCIENTISTS	2752	4713	4437	3872	3661	841	776	4151	3937	129	198	3.1	5.0
MEDICAL SCIENTISTS	2753	681	678	386	409	295	269	458	433	5	7	1.1	1.6
OTHER LIFE SCIENTISTS	2754	2150	1593	1602	1171	548	422	1808	1310	22	15	1.2	1.1
PSYCHOLOGISTS (TOTAL)	2760	5346	4844	3774	3492	1572	1352	4273	3936	48	53	1.1	1.3
SOCIAL SCIENTISTS (TOTAL)	2770	11552	10450	8747	7831	2805	2619	9724	8757	171	174	1.8	2.0
ECONOMISTS	2771	3248	2919	2339	2055	909	864	2674	2368	23	31	0.9	1.3
POLITICAL SCIENTISTS	2772	2619	2450	2025	1909	594	541	2225	2090	37	40	1.7	1.9
SOCIOLOGISTS	2773	3046	2758	2451	2179	595	579	2653	2373	49	51	1.8	2.1
OTHER SOCIAL SCIENTISTS	2774	2639	2323	1932	1688	707	635	2172	1927	62	52	2.9	2.7
TOTAL	2700	44743	40665	32822	29730	11921	10935	37022	33593	952	996	2.6	3.0

TABLE A1H

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1984
PUBLIC MASTER'S GRANTING UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1984 AND JANUARY 1983

ITEM 1. HIGHEST EARNED DEGREE		TOTAL		FULL TIME		PART TIME	
		1984	1983	1984	1983	1984	1983
DOCTOR'S	2210	20011	18016	18403	16443	1608	1573
FIRST PROFESSIONAL	2220	515	392	357	200	158	192
MASTER'S	2230	10134	9015	5965	5635	4169	3380
BACHELOR'S OR THE EQUIVALENT	2240	2549	2111	1018	693	1551	1418
TOTAL	2200	33229	29534	25743	22971	7486	6563

ITEM 2. DISCIPLINES		TOTAL		MEN		WOMEN	
		FULL TIME 1984 1983	PART TIME 1984 1983	FULL TIME 1984 1983	PART TIME 1984 1983	FULL TIME 1984 1983	PART TIME 1984 1983
ENGINEERS (TOTAL)	2610	1605 1524	836 857	1545 1481	799 819	60 43	37 38
AERONAUTICAL & ASTRONAUTICAL	2611	19 18	14 13	19 18	14 13	0 0	0 0
CHEMICAL ENGINEERS	2612	79 77	16 29	78 75	16 28	1 2	0 1
CIVIL ENGINEERS	2613	363 377	158 161	338 357	149 154	25 20	9 7
ELECTRICAL ENGINEERS	2614	345 362	269 257	335 358	205 242	10 4	14 15
MECHANICAL ENGINEERS	2615	287 297	173 177	280 293	166 172	7 4	7 5
OTHER ENGINEERS	2616	512 393	206 220	495 380	199 210	17 13	7 10
PHYSICAL SCIENTISTS (TOTAL)	2620	3193 2940	732 612	2889 2684	558 455	304 256	174 157
ASTRONOMERS	2621	62 50	4 11	54 47	3 9	8 3	1 2
CHEMISTS	2622	1790 1674	423 316	1595 1492	291 201	195 182	132 115
PHYSICISTS	2623	1110 1089	278 249	1073 1045	247 220	37 44	31 29
OTHER PHYSICAL SCIENTISTS	2624	231 127	27 36	167 100	17 25	64 27	10 11
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	1239 1016	206 198	1151 938	162 160	88 78	44 38
ATMOSPHERIC SCIENTISTS	2631	35 30	10 10	34 29	10 10	1 1	0 0
EARTH SCIENTISTS	2632	993 856	153 143	930 799	118 117	63 57	35 26
OCEANOGRAPHERS	2633	54 45	8 9	42 36	4 7	12 9	4 2
OTHER ENVIRONMENTAL SCIENTISTS	2634	157 85	35 36	145 74	30 26	12 11	5 10
MATHEMATICAL SCIENTISTS (TOTAL)	2640	4780 4118	2016 1736	3870 3348	1364 1244	910 770	652 492
MATHEMATICIANS	2641	3253 2995	1343 1112	2651 2431	833 743	602 564	510 369
COMPUTER SCIENTISTS	2642	1527 1123	673 624	1219 917	531 501	308 206	142 123
LIFE SCIENTISTS (TOTAL)	2650	5095 4578	1112 880	3388 3222	538 454	1707 1356	574 426
AGRICULTURAL SCIENTISTS	2651	566 622	65 99	511 559	48 75	55 63	17 24
BIOLOGICAL SCIENTISTS	2652	2906 2813	561 439	2439 2322	330 248	467 491	231 191
MEDICAL SCIENTISTS	2653	212 194	116 90	90 101	77 69	122 93	39 21
OTHER LIFE SCIENTISTS	2654	1411 949	370 252	348 240	83 62	1063 709	287 190
PSYCHOLOGISTS (TOTAL)	2660	3011 2704	792 681	2280 2037	424 386	731 667	368 295
SOCIAL SCIENTISTS (TOTAL)	2670	6820 6091	1792 1599	5536 4979	1289 1179	1284 1112	503 420
ECONOMISTS	2671	1624 1495	549 511	1444 1333	471 451	180 162	78 60
POLITICAL SCIENTISTS	2672	1530 1435	394 308	1325 1258	288 236	205 177	106 72
SOCIOLOGISTS	2673	1934 1670	354 335	1431 1226	191 183	503 444	164 152
OTHER SOCIAL SCIENTISTS	2674	1732 1491	495 445	1336 1162	339 309	396 329	154 136
TOTAL	2600	25743 22971	7486 6563	20659 18689	5134 4697	5084 4282	2352 1866

ITEM 3. DISCIPLINES		TOTAL		FULL TIME		PART TIME		TOTAL FTE'S		FTE'S DEVOTED TO R&D		% TOTAL FTE'S DEVOTED TO R&D	
		1984 1983	1984 1983	1984 1983	1984 1983	1984 1983	1984 1983	1984 1983	1984 1983	1984 1983	1984 1983	1984 1983	1984 1983
ENGINEERS (TOTAL)	2710	2441 2381	1605 1524	836 857	1869 1780	36 49	1.9 2.8						
AERONAUTICAL & ASTRONAUTICAL	2711	33 31	19 18	14 13	39 22	0 0	0.0 0.0						
CHEMICAL ENGINEERS	2712	95 106	79 77	16 29	84 84	3 5	3.6 6.0						
CIVIL ENGINEERS	2713	521 538	363 377	158 161	414 434	12 8	2.9 1.8						
ELECTRICAL ENGINEERS	2714	614 619	345 362	269 257	420 440	7 14	1.7 3.2						
MECHANICAL ENGINEERS	2715	460 474	287 297	173 177	337 367	6 12	1.8 3.5						
OTHER ENGINEERS	2716	718 613	512 393	206 220	575 454	8 12	1.4 2.6						
PHYSICAL SCIENTISTS (TOTAL)	2720	3925 3552	3193 2940	732 612	3424 3160	270 163	7.9 5.2						
ASTRONOMERS	2721	66 61	62 50	4 11	64 54	1 1	1.6 1.9						
CHEMISTS	2722	2213 1990	1790 1674	423 316	1926 1791	97 85	5.0 4.7						
PHYSICISTS	2723	1388 1338	1110 1089	278 249	1187 1172	27 35	2.3 3.0						
OTHER PHYSICAL SCIENTISTS	2724	258 163	231 127	27 36	247 142	145 42	58.7 29.6						
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	1445 1214	1239 1016	206 198	1309 1076	88 82	6.7 7.6						
ATMOSPHERIC SCIENTISTS	2731	45 40	35 30	10 10	36 31	3 6	3.3 19.4						
EARTH SCIENTISTS	2732	1146 999	993 856	153 143	1039 896	65 53	6.3 5.9						
OCEANOGRAPHERS	2733	62 54	54 45	8 9	53 54	13 14	22.4 25.9						
OTHER ENVIRONMENTAL SCIENTISTS	2734	192 121	157 85	35 36	175 95	7 10	4.0 10.5						
MATHEMATICAL SCIENTISTS (TOTAL)	2740	6796 5854	4780 4118	2016 1736	5546 4788	91 94	1.6 2.0						
MATHEMATICIANS	2741	4596 4107	3253 2995	1343 1112	3769 3452	58 57	1.5 1.7						
COMPUTER SCIENTISTS	2742	2200 1747	1527 1123	673 624	1777 1336	32 37	1.8 2.8						
LIFE SCIENTISTS (TOTAL)	2750	6207 5458	5095 4578	1112 880	5456 4865	186 269	3.4 5.5						
AGRICULTURAL SCIENTISTS	2751	631 721	566 622	65 99	587 664	53 69	9.0 10.4						
BIOLOGICAL SCIENTISTS	2752	3467 3252	2906 2813	561 439	3065 2958	107 179	3.5 6.1						
MEDICAL SCIENTISTS	2753	328 284	212 194	116 90	256 221	5 7	2.0 3.2						
OTHER LIFE SCIENTISTS	2754	1781 1201	1411 949	370 252	1548 1022	22 15	1.4 1.5						
PSYCHOLOGISTS (TOTAL)	2760	3803 3385	3011 2704	792 681	3230 2892	33 47	1.0 1.6						
SOCIAL SCIENTISTS (TOTAL)	2770	8612 7690	6820 6091	1792 1599	7410 6632	162 152	2.2 2.3						
ECONOMISTS	2771	2173 2006	1624 1495	549 511	1815 1646	22 24	1.2 1.4						
POLITICAL SCIENTISTS	2772	1924 1743	1530 1435	394 308	1651 1540	34 32	2.1 2.1						
SOCIOLOGISTS	2773	2288 2005	1934 1670	354 335	2042 1774	45 45	2.2 2.5						
OTHER SOCIAL SCIENTISTS	2774	2227 1936	1732 1491	495 445	1902 1651	62 51	3.3 3.1						
TOTAL	2700	33229 29534	25743 22971	7486 6563	28244 25193	865 856	3.1 3.4						

TABLE A11

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1984
PRIVATE MASTER'S GRANTING UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1984 AND JANUARY 1983

ITEM 1. HIGHEST EARNED DEGREE		TOTAL		FULL TIME		PART TIME	
		1984	1983	1984	1983	1984	1983
DOCTOR'S	2210	6471	6092	5270	4761	1201	1331
FIRST PROFESSIONAL	2220	206	215	39	79	167	136
MASTER'S	2230	4257	4135	1605	1795	2652	2400
BACHELOR'S OR THE EQUIVALENT	2240	580	689	165	184	415	505
TOTAL	2200	11514	11131	7079	6759	4435	4372

ITEM 2. DISCIPLINES		TOTAL		FULL TIME		PART TIME		MEN		FULL TIME		PART TIME		WOMEN		FULL TIME		PART TIME	
		1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
ENGINEERS (TOTAL)	2610	410	640	324	444	401	627	322	441	9	13	2	3	0	0	0	0	0	0
AERONAUTICAL & ASTRONAUTICAL	2611	0	6	4	4	0	5	4	4	0	1	0	0	0	0	0	0	0	0
CHEMICAL ENGINEERS	2612	20	43	23	23	19	41	22	23	1	2	1	0	0	0	0	0	0	0
CIVIL ENGINEERS	2613	72	95	40	49	70	93	40	49	2	2	1	0	0	0	0	0	0	0
ELECTRICAL ENGINEERS	2614	195	236	134	174	154	234	133	174	1	2	1	0	0	0	0	0	0	0
MECHANICAL ENGINEERS	2615	123	204	80	142	122	202	80	140	1	2	1	0	0	0	0	0	0	0
OTHER ENGINEERS	2616	40	56	43	52	36	52	43	51	4	4	4	0	0	0	0	0	0	0
PHYSICAL SCIENTISTS (TOTAL)	2620	1152	1049	439	435	1010	937	329	332	142	112	110	103	0	0	0	0	0	0
ASTRONOMERS	2621	24	12	8	6	24	11	6	6	0	1	2	0	0	0	0	0	0	0
CHEMISTS	2622	663	611	283	252	549	516	195	171	114	95	88	81	0	0	0	0	0	0
PHYSICISTS	2623	445	409	139	153	417	395	120	138	28	14	19	15	0	0	0	0	0	0
OTHER PHYSICAL SCIENTISTS	2624	20	17	9	24	20	15	8	17	0	2	1	7	0	0	0	0	0	0
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	149	123	75	70	128	104	53	62	21	19	22	8	0	0	0	0	0	0
ATMOSPHERIC SCIENTISTS	2631	0	2	3	7	0	2	3	7	0	0	0	0	0	0	0	0	0	0
EARTH SCIENTISTS	2632	140	104	62	51	123	93	41	43	17	11	21	8	0	0	0	0	0	0
OCEANOGRAPHERS	2633	0	1	4	4	0	0	4	4	0	0	0	0	0	0	0	0	0	0
OTHER ENVIRONMENTAL SCIENTISTS	2634	9	16	6	8	5	9	5	8	4	7	1	0	0	0	0	0	0	0
MATHEMATICAL SCIENTISTS (TOTAL)	2640	1312	1089	1161	1036	1014	880	863	808	298	209	298	228	0	0	0	0	0	0
MATHEMATICIANS	2641	907	780	706	650	678	625	517	491	229	155	189	159	0	0	0	0	0	0
COMPUTER SCIENTISTS	2642	405	309	455	386	336	255	346	317	69	54	109	59	0	0	0	0	0	0
LIFE SCIENTISTS (TOTAL)	2650	1364	1330	643	696	887	841	322	354	479	489	321	342	0	0	0	0	0	0
AGRICULTURAL SCIENTISTS	2651	35	45	6	10	26	36	5	9	9	9	1	1	0	0	0	0	0	0
BIOLOGICAL SCIENTISTS	2652	966	848	280	337	767	649	184	198	199	199	96	139	0	0	0	0	0	0
MEDICAL SCIENTISTS	2653	174	215	179	179	44	102	80	88	130	113	99	91	0	0	0	0	0	0
OTHER LIFE SCIENTISTS	2654	191	222	178	170	50	54	53	59	141	168	125	111	0	0	0	0	0	0
PSYCHOLOGISTS (TOTAL)	2660	763	788	780	671	569	557	469	409	194	231	311	262	0	0	0	0	0	0
SOCIAL SCIENTISTS (TOTAL)	2670	1927	1740	1013	1020	1572	1380	703	762	355	360	310	258	0	0	0	0	0	0
ECONOMISTS	2671	715	560	360	353	638	490	284	301	77	70	76	52	0	0	0	0	0	0
POLITICAL SCIENTISTS	2672	495	474	200	233	436	393	154	185	59	81	46	48	0	0	0	0	0	0
SOCIOLOGISTS	2673	517	509	241	244	363	368	148	164	154	141	93	80	0	0	0	0	0	0
OTHER SOCIAL SCIENTISTS	2674	200	197	212	190	135	129	117	112	65	68	95	78	0	0	0	0	0	0
TOTAL	2600	7079	6759	4435	4372	5581	5326	3061	3168	1498	1433	1374	1204						

ITEM 3. DISCIPLINES		TOTAL		FULL TIME		PART TIME		TOTAL FTE'S		FTE'S DEVOTED TO R&D		% TOTAL FTE'S DEVOTED TO R&D	
		1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
ENGINEERS (TOTAL)	2710	734	1084	410	640	324	444	554	797	14	31	2.5	3.9
AERONAUTICAL & ASTRONAUTICAL	2711	4	10	0	6	4	4	4	10	1	2	25.0	20.0
CHEMICAL ENGINEERS	2712	43	66	20	43	23	23	26	52	0	3	0.0	5.8
CIVIL ENGINEERS	2713	112	144	72	95	40	49	87	112	3	4	3.4	3.6
ELECTRICAL ENGINEERS	2714	289	410	155	236	134	174	230	296	5	8	2.2	2.7
MECHANICAL ENGINEERS	2715	203	346	123	204	80	142	147	255	4	9	2.7	3.5
OTHER ENGINEERS	2716	83	108	40	56	43	52	60	72	0	4	0.0	5.6
PHYSICAL SCIENTISTS (TOTAL)	2720	1591	1484	1152	1049	439	435	1329	1244	17	32	1.3	2.6
ASTRONOMERS	2721	32	18	24	12	8	6	28	15	4	0	14.3	0.0
CHEMISTS	2722	946	863	663	611	283	252	780	725	12	19	1.5	2.6
PHYSICISTS	2723	584	562	445	409	139	153	497	480	1	13	0.2	2.7
OTHER PHYSICAL SCIENTISTS	2724	29	41	20	17	9	24	24	23	0	0	0.0	0.0
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	224	193	149	123	75	70	184	157	0	1	0.0	0.6
ATMOSPHERIC SCIENTISTS	2731	3	9	0	2	3	7	1	7	0	1	0.0	14.3
EARTH SCIENTISTS	2732	202	155	140	104	62	51	167	126	0	0	0.0	0.0
OCEANOGRAPHERS	2733	4	5	0	1	4	4	3	4	0	0	0.0	0.0
OTHER ENVIRONMENTAL SCIENTISTS	2734	15	24	9	16	6	8	13	21	0	0	0.0	0.0
MATHEMATICAL SCIENTISTS (TOTAL)	2740	2473	2125	1312	1089	1161	1036	1771	1506	2	22	0.3	1.5
MATHEMATICIANS	2741	1613	1430	907	780	706	650	1182	1046	2	10	0.2	1.0
COMPUTER SCIENTISTS	2742	860	695	405	309	455	386	588	460	3	12	0.5	2.6
LIFE SCIENTISTS (TOTAL)	2750	2009	2026	1366	1330	643	696	1585	1526	26	25	1.6	1.6
AGRICULTURAL SCIENTISTS	2751	41	55	35	45	6	10	36	48	3	6	8.3	12.5
BIOLOGICAL SCIENTISTS	2752	1246	1185	966	848	280	337	1086	979	22	19	2.0	1.9
MEDICAL SCIENTISTS	2753	353	394	174	215	179	179	202	212	0	1	0.0	0.5
OTHER LIFE SCIENTISTS	2754	369	392	191	222	178	170	261	288	0	0	0.0	0.0
PSYCHOLOGISTS (TOTAL)	2760	1543	1459	763	788	780	671	1042	1044	15	7	1.4	0.7
SOCIAL SCIENTISTS (TOTAL)	2770	2940	2760	1927	1740	1013	1020	2314	2126	9	22	0.4	1.0
ECONOMISTS	2771	1075	913	715	560	360	353	859	702	2	7	0.2	1.0
POLITICAL SCIENTISTS	2772	695	707	495	474	200	233	574	549	3	8	0.5	1.5
SOCIOLOGISTS	2773	758	793	517	509	241	244	612	599	4	6	0.7	1.0
OTHER SOCIAL SCIENTISTS	2774	412	387	200	197	212	190	270	276	0	1	0.0	0.4
TOTAL	2700	11514	11131	7079	6759	4435	4372	8778	8400	86	141	1.0	1.7

TABLE A1J

**SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1984
BACHELOR'S GRANTING UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES**

SCIENTISTS AND ENGINEERS, JANUARY 1984 AND JANUARY 1983

ITEM 1. HIGHEST EARNED DEGREE		TOTAL		FULL TIME		PART TIME	
		1984	1983	1984	1983	1984	1983
DOCTOR'S	2210	15537	15719	13709	13838	1828	1881
FIRST PROFESSIONAL	2220	345	614	165	231	180	383
MASTER'S	2230	11499	11131	6933	7127	4566	4004
BACHELOR'S OR THE EQUIVALENT	2240	2431	2005	1004	1023	1425	982
TOTAL	2200	29812	29449	21813	22219	7999	7250

ITEM 2. DISCIPLINES		TOTAL				MEN				WOMEN			
		FULL TIME		PART TIME		FULL TIME		PART TIME		FULL TIME		PART TIME	
		1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
ENGINEERS (TOTAL)	2610	1237	1422	937	446	1229	1403	916	436	8	19	21	10
AERONAUTICAL & ASTRONAUTICAL	2611	141	139	32	21	139	136	31	20	2	3	1	1
CHEMICAL ENGINEERS	2612	1	19	4	11	1	18	4	10	0	1	0	1
CIVIL ENGINEERS	2613	227	253	67	92	226	250	66	89	1	3	1	3
ELECTRICAL ENGINEERS	2614	379	404	659	137	377	399	640	137	2	5	19	0
MECHANICAL ENGINEERS	2615	291	313	123	95	289	312	123	93	2	1	0	2
OTHER ENGINEERS	2616	198	294	52	90	197	288	52	87	1	6	0	3
PHYSICAL SCIENTISTS (TOTAL)	2620	3591	3700	713	733	3090	3251	528	541	501	449	185	192
ASTRONOMERS	2621	21	34	11	25	17	31	11	19	4	3	0	6
CHEMISTS	2622	2284	2259	410	434	1890	1897	248	288	394	362	162	146
PHYSICISTS	2623	1181	1249	261	245	1100	1185	246	212	81	64	15	33
OTHER PHYSICAL SCIENTISTS	2624	105	158	31	29	83	138	23	22	22	20	8	7
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	503	564	143	159	478	521	103	128	25	45	40	31
ATMOSPHERIC SCIENTISTS	2631	9	14	5	17	9	14	3	17	0	0	2	0
EARTH SCIENTISTS	2632	371	405	114	118	359	372	77	90	12	33	37	28
OCEANOGRAPHERS	2633	21	54	14	4	21	51	14	4	0	3	0	0
OTHER ENVIRONMENTAL SCIENTISTS	2634	102	93	10	20	89	84	9	17	13	9	1	3
MATHEMATICAL SCIENTISTS (TOTAL)	2640	4073	3923	2186	1697	3239	3147	1448	1170	834	776	738	527
MATHEMATICIANS	2641	2898	2999	1322	1166	2303	2375	733	727	595	624	589	439
COMPUTER SCIENTISTS	2642	1175	924	864	531	936	772	715	443	239	152	149	88
LIFE SCIENTISTS (TOTAL)	2650	4796	4586	1295	1351	2802	2986	595	789	1994	1600	700	562
AGRICULTURAL SCIENTISTS	2651	339	245	49	38	307	223	44	35	32	22	5	3
BIOLOGICAL SCIENTISTS	2652	2924	3176	669	680	2263	2437	355	354	661	739	314	326
MEDICAL SCIENTISTS	2653	262	363	151	398	154	207	119	346	108	156	32	52
OTHER LIFE SCIENTISTS	2654	1271	802	426	235	78	119	77	54	1193	683	349	181
PSYCHOLOGISTS (TOTAL)	2660	2228	2393	877	953	1651	1807	529	577	577	586	348	376
SOCIAL SCIENTISTS (TOTAL)	2670	5385	5629	1848	1911	4317	4519	1341	1430	1068	1110	507	481
ECONOMISTS	2671	1666	1656	581	592	1427	1475	490	522	239	181	91	70
POLITICAL SCIENTISTS	2672	1420	1406	288	335	1218	1224	223	272	202	182	55	63
SOCIOLOGISTS	2673	1538	1756	582	612	1108	1251	327	373	430	505	255	239
OTHER SOCIAL SCIENTISTS	2674	761	811	397	372	564	569	291	263	197	242	106	109
TOTAL	2600	21813	22219	7999	7250	16806	17634	5460	5071	5007	4585	2539	2179

ITEM 3. DISCIPLINES		TOTAL		FULL TIME		PART TIME		TOTAL FTE'S		FTE'S DEVOTED TO R&D		% TOTAL FTE'S DEVOTED TO R&D	
		1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
ENGINEERS (TOTAL)	2710	2174	1868	1237	1422	937	446	1539	1600	27	34	1.8	2.1
AERONAUTICAL & ASTRONAUTICAL	2711	173	160	141	139	32	21	150	142	4	5	2.7	3.5
CHEMICAL ENGINEERS	2712	5	30	1	19	4	11	2	26	0	0	0.0	0.0
CIVIL ENGINEERS	2713	294	345	227	253	67	92	258	295	2	3	0.8	1.0
ELECTRICAL ENGINEERS	2714	1038	541	379	404	659	137	555	459	13	11	2.3	2.4
MECHANICAL ENGINEERS	2715	414	408	291	313	123	95	361	351	4	7	1.1	2.0
OTHER ENGINEERS	2716	250	384	198	294	52	90	213	327	4	8	1.9	2.4
PHYSICAL SCIENTISTS (TOTAL)	2720	4304	4433	3591	3700	713	733	3876	4062	162	104	4.2	2.6
ASTRONOMERS	2721	32	59	21	34	11	25	25	43	1	0	4.0	0.0
CHEMISTS	2722	2694	2693	2284	2259	410	434	2444	2471	91	62	3.7	2.5
PHYSICISTS	2723	1442	1494	1181	1249	261	245	1289	1379	68	41	2.3	3.0
OTHER PHYSICAL SCIENTISTS	2724	136	187	105	158	31	29	119	171	2	1	6.1	4.2
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	646	725	503	566	143	159	556	646	34	27	0.0	0.0
ATMOSPHERIC SCIENTISTS	2731	14	31	9	14	114	118	10	20	0	0	4.8	1.7
EARTH SCIENTISTS	2732	485	523	371	405	14	4	413	469	7	11	29.0	19.3
OCEANOGRAPHERS	2733	35	58	21	54	14	4	28	57	0	0	6.7	6.9
OTHER ENVIRONMENTAL SCIENTISTS	2734	112	113	102	93	10	20	105	101	7	7	1.4	1.1
MATHEMATICAL SCIENTISTS (TOTAL)	2740	6259	5620	4073	3923	2186	1697	4982	4687	69	51	1.5	1.0
MATHEMATICIANS	2741	4220	4165	2898	2999	1322	1166	3464	3530	53	37	1.1	1.2
COMPUTER SCIENTISTS	2742	2039	1455	1175	924	864	531	1518	1157	17	14	3.8	3.3
LIFE SCIENTISTS (TOTAL)	2750	6091	5937	4796	4586	1295	1351	5280	5160	200	168	21.9	12.1
AGRICULTURAL SCIENTISTS	2751	388	283	339	245	49	38	347	257	76	31	3.7	3.6
BIOLOGICAL SCIENTISTS	2752	3593	3856	2924	3176	669	680	3203	3501	118	122	1.7	1.8
MEDICAL SCIENTISTS	2753	413	761	262	363	151	398	301	500	5	9	0.1	0.7
OTHER LIFE SCIENTISTS	2754	1627	1037	1271	802	426	235	1428	901	1	6	1.8	1.4
PSYCHOLOGISTS (TOTAL)	2760	3105	3346	2228	2393	877	953	2550	2796	46	39	1.5	1.1
SOCIAL SCIENTISTS (TOTAL)	2770	7233	7540	5385	5629	1848	1911	6053	6426	90	68	1.3	0.9
ECONOMISTS	2771	2247	2248	1666	1656	581	592	1897	1900	24	18	2.2	1.0
POLITICAL SCIENTISTS	2772	1708	1741	1420	1406	288	335	1522	1562	33	15	1.8	1.2
SOCIOLOGISTS	2773	2120	2368	1538	1756	582	612	1760	2014	31	24	0.2	1.2
OTHER SOCIAL SCIENTISTS	2774	1158	1183	761	811	397	372	873	951	2	11		
TOTAL	2700	29812	29449	21813	22219	7999	7250	24837	25378	629	491	2.5	1.9

TABLE A1K

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1984
PUBLIC BACHELOR'S GRANTING UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1984 AND JANUARY 1983

ITEM 1. HIGHEST EARNED DEGREE		TOTAL		FULL TIME		PART TIME	
		1984	1983	1984	1983	1984	1983
DOCTOR'S	2210	4152	4263	3967	3944	185	319
FIRST PROFESSIONAL	2220	66	74	55	50	11	24
MASTER'S	2230	3315	3604	2713	2894	602	710
BACHELOR'S OR THE EQUIVALENT	2240	546	614	345	368	201	246
TOTAL	2200	8079	8555	7080	7256	999	1299

ITEM 2. DISCIPLINES		TOTAL		MEN		WOMEN	
		FULL TIME 1984 1983	PART TIME 1984 1983	FULL TIME 1984 1983	PART TIME 1984 1983	FULL TIME 1984 1983	PART TIME 1984 1983
ENGINEERS (TOTAL)	2610	796 835	79 114	792 824	77 113	4 11	2 1
AERONAUTICAL & ASTRONAUTICAL	2611	96 86	12 12	94 84	11 11	2 2	1 1
CHEMICAL ENGINEERS	2612	0 2	0 0	0 2	0 0	0 0	0 0
CIVIL ENGINEERS	2613	172 147	24 25	171 144	23 25	1 3	1 0
ELECTRICAL ENGINEERS	2614	204 216	29 30	203 213	29 30	1 3	0 0
MECHANICAL ENGINEERS	2615	184 199	7 22	184 198	7 22	0 1	0 0
OTHER ENGINEERS	2616	140 185	7 25	140 183	7 25	0 2	0 0
PHYSICAL SCIENTISTS (TOTAL)	2620	1056 1108	99 129	993 1022	75 99	43 86	24 30
ASTRONOMERS	2621	5 6	0 1	5 4	0 1	0 2	0 0
CHEMISTS	2622	615 583	56 81	565 520	34 57	50 43	22 24
PHYSICISTS	2623	367 419	3 39	358 406	30 35	9 13	1 4
OTHER PHYSICAL SCIENTISTS	2624	69 100	12 8	65 92	11 6	4 8	1 2
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	240 279	47 56	233 260	26 47	7 19	21 9
ATMOSPHERIC SCIENTISTS	2631	9 7	5 10	9 12	3 10	0 0	2 0
EARTH SCIENTISTS	2632	168 156	38 35	165 145	20 28	3 11	18 7
OCEANOGRAPHERS	2633	17 47	0 0	17 45	0 0	0 2	0 0
OTHER ENVIRONMENTAL SCIENTISTS	2634	46 64	4 11	42 58	3 9	4 6	1 2
MATHEMATICAL SCIENTISTS (TOTAL)	2640	1485 1369	375 401	1222 1130	226 274	263 239	149 127
MATHEMATICIANS	2641	1054 1024	258 298	866 836	141 187	185 188	117 111
COMPUTER SCIENTISTS	2642	431 345	117 103	356 294	85 87	75 51	32 16
LIFE SCIENTISTS (TOTAL)	2650	1420 1371	115 196	918 927	51 103	502 444	64 93
AGRICULTURAL SCIENTISTS	2651	200 177	17 19	178 158	12 18	22 19	5 1
BIOLOGICAL SCIENTISTS	2652	808 839	64 107	672 670	29 58	136 169	35 49
MEDICAL SCIENTISTS	2653	28 84	1 11	16 25	1 11	12 59	0 0
OTHER LIFE SCIENTISTS	2654	384 271	33 59	52 74	9 16	332 197	24 43
PSYCHOLOGISTS (TOTAL)	2660	594 679	85 127	470 535	58 77	124 144	27 50
SOCIAL SCIENTISTS (TOTAL)	2670	1489 1615	199 276	1254 1341	136 211	235 274	63 65
ECONOMISTS	2671	364 389	30 55	342 363	17 50	22 26	13 5
POLITICAL SCIENTISTS	2672	411 408	26 39	358 356	25 37	53 52	1 2
SOCIOLOGISTS	2673	371 482	52 93	298 370	32 62	73 112	20 31
OTHER SOCIAL SCIENTISTS	2674	343 336	91 89	256 252	62 62	87 84	29 27
TOTAL	2600	7080 7256	999 1299	5882 6039	649 924	1198 1217	350 375

ITEM 3. DISCIPLINES		TOTAL		FULL TIME		PART TIME		TOTAL FTE'S		FTE'S DEVOTED TO R&D		% TOTAL FTE'S DEVOTED TO R&D	
		1984 1983	1984 1983	1984 1983	1984 1983	1984 1983	1984 1983	1984 1983	1984 1983	1984 1983	1984 1983	1984 1983	1984 1983
ENGINEERS (TOTAL)	2710	875 949	796 835	79 114	818 868	12 19	12 19	1.5 2.2					
AERONAUTICAL & ASTRONAUTICAL	2711	108 98	96 86	12 12	100 90	4 5	4 5	4.0 5.6					
CHEMICAL ENGINEERS	2712	0 2	0 0	0 0	0 2	0 0	0 0	0.0 0.0					
CIVIL ENGINEERS	2713	194 172	172 147	24 25	179 153	2 3	2 3	1.1 2.0					
ELECTRICAL ENGINEERS	2714	233 246	204 216	29 30	211 226	3 4	3 4	1.4 1.8					
MECHANICAL ENGINEERS	2715	191 221	184 199	7 22	184 205	3 6	3 6	1.6 2.9					
OTHER ENGINEERS	2716	147 210	140 185	7 25	144 191	0 1	0 1	0.0 0.5					
PHYSICAL SCIENTISTS (TOTAL)	2720	1155 1237	1056 1108	99 129	1092 1164	64 38	64 38	5.9 3.3					
ASTRONOMERS	2721	5 7	5 6	0 1	5 7	0 0	0 0	0.0 0.0					
CHEMISTS	2722	671 664	615 583	56 81	633 616	40 22	40 22	6.3 3.6					
PHYSICISTS	2723	398 458	367 419	31 39	380 440	22 15	22 15	5.8 3.4					
OTHER PHYSICAL SCIENTISTS	2724	81 108	69 100	12 8	74 101	2 1	2 1	2.7 1.0					
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	287 335	240 279	47 56	255 301	28 21	28 21	11.0 7.0					
ATMOSPHERIC SCIENTISTS	2731	14 22	9 12	5 10	10 15	0 0	0 0	0.0 0.0					
EARTH SCIENTISTS	2732	206 191	168 156	38 35	180 171	18 6	18 6	10.0 3.5					
OCEANOGRAPHERS	2733	17 47	17 47	0 0	17 47	3 8	3 8	17.6 17.0					
OTHER ENVIRONMENTAL SCIENTISTS	2734	50 75	46 64	4 11	47 68	7 7	7 7	14.9 10.3					
MATHEMATICAL SCIENTISTS (TOTAL)	2740	1860 1770	1485 1369	375 401	1614 1549	46 23	46 23	2.9 1.5					
MATHEMATICIANS	2741	1312 1322	1054 1024	258 298	1149 1163	36 17	36 17	3.1 1.5					
COMPUTER SCIENTISTS	2742	548 448	431 345	117 103	465 386	10 6	10 6	2.2 1.6					
LIFE SCIENTISTS (TOTAL)	2750	1535 1567	1420 1371	115 196	1412 1465	144 98	144 98	10.2 6.7					
AGRICULTURAL SCIENTISTS	2751	217 196	200 177	17 19	199 178	76 31	76 31	38.2 17.4					
BIOLOGICAL SCIENTISTS	2752	872 946	808 839	64 107	826 896	64 59	64 59	7.7 6.6					
MEDICAL SCIENTISTS	2753	29 95	28 84	1 11	29 91	7 4	7 4	10.3 4.4					
OTHER LIFE SCIENTISTS	2754	417 330	384 271	33 59	358 300	1 4	1 4	0.3 1.3					
PSYCHOLOGISTS (TOTAL)	2760	679 806	594 679	85 127	620 739	37 21	37 21	6.0 2.8					
SOCIAL SCIENTISTS (TOTAL)	2770	1688 1891	1489 1615	199 276	1529 1733	59 32	59 32	3.9 1.8					
ECONOMISTS	2771	394 444	364 389	30 55	375 410	13 8	13 8	3.5 2.0					
POLITICAL SCIENTISTS	2772	437 447	411 408	26 39	410 429	25 8	25 8	6.1 1.9					
SOCIOLOGISTS	2773	423 575	371 482	52 93	380 525	21 15	21 15	5.5 2.9					
OTHER SOCIAL SCIENTISTS	2774	434 425	343 336	91 89	363 369	1 1	1 1	0.3 0.3					
TOTAL	2700	8079 8555	7080 7256	999 1299	7340 7819	390 252	390 252	5.3 3.2					

TABLE A11

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1984
PRIVATE BACHELOR'S GRANTING UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1984 AND JANUARY 1983

ITEM 1. HIGHEST EARNED DEGREE		TOTAL		FULL TIME		PART TIME	
		1984	1983	1984	1983	1984	1983
DOCTOR'S	2210	11385	11456	9742	9894	1643	1562
FIRST PROFESSIONAL	2220	279	340	110	181	169	359
MASTER'S	2230	8184	7527	4220	4233	3964	3294
BACHELOR'S OR THE EQUIVALENT	2240	1885	1391	661	655	1224	736
TOTAL	2200	21733	20914	14733	14963	7000	5951

ITEM 2. DISCIPLINES		TOTAL		FULL TIME		PART TIME		FULL TIME		PART TIME		FULL TIME		PART TIME	
		1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
ENGINEERS (TOTAL)	2610	441	587	858	332	437	579	839	323	4	8	19	9		
AERONAUTICAL & ASTRONAUTICAL	2611	45	53	20	9	45	52	20	9	0	1	0	0		
CHEMICAL ENGINEERS	2612	1	17	4	11	1	16	4	10	0	1	0	3		
CIVIL ENGINEERS	2613	55	106	43	67	55	106	43	64	0	0	0	0		
ELECTRICAL ENGINEERS	2614	175	188	630	107	174	186	611	107	2	2	19	0		
MECHANICAL ENGINEERS	2615	107	114	116	73	105	114	116	71	1	4	0	3		
OTHER ENGINEERS	2616	58	109	45	65	57	105	45	62	1	4	0	3		
PHYSICAL SCIENTISTS (TOTAL)	2620	2535	2592	614	604	2097	2229	453	442	438	363	161	162		
ASTRONOMERS	2621	16	28	11	24	12	27	11	18	4	1	0	6		
CHEMISTS	2622	1669	1676	354	353	1325	1377	214	237	344	299	140	122		
PHYSICISTS	2623	814	830	230	206	742	779	216	177	72	51	14	29		
OTHER PHYSICAL SCIENTISTS	2624	36	58	19	21	18	46	12	16	18	12	7	5		
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	263	287	96	103	245	261	77	81	18	26	19	22		
ATMOSPHERIC SCIENTISTS	2631	0	2	0	7	0	2	0	7	0	0	0	0		
EARTH SCIENTISTS	2632	203	249	76	83	194	227	57	62	9	22	19	21		
OCEANOGRAPHERS	2633	4	7	14	4	4	6	14	4	0	1	0	0		
OTHER ENVIRONMENTAL SCIENTISTS	2634	56	29	6	9	47	26	6	8	9	3	0	1		
MATHEMATICAL SCIENTISTS (TOTAL)	2640	2588	2554	1811	1296	2017	2017	1222	896	571	537	589	400		
MATHEMATICIANS	2641	1844	1975	1064	868	1437	1539	592	540	407	436	472	328		
COMPUTER SCIENTISTS	2642	744	579	747	428	580	478	630	356	164	101	117	72		
LIFE SCIENTISTS (TOTAL)	2650	3376	3215	1180	1155	1884	2055	544	686	1492	1156	636	469		
AGRICULTURAL SCIENTISTS	2651	139	68	32	19	129	65	32	17	10	3	0	2		
BIOLOGICAL SCIENTISTS	2652	2116	2337	605	573	1591	1767	326	296	525	570	279	277		
MEDICAL SCIENTISTS	2653	234	279	150	387	138	182	118	335	96	97	32	52		
OTHER LIFE SCIENTISTS	2654	887	531	393	176	26	45	68	38	861	486	325	138		
PSYCHOLOGISTS (TOTAL)	2660	1634	1714	792	826	1181	1272	471	500	453	442	321	326		
SOCIAL SCIENTISTS (TOTAL)	2670	3896	4014	1649	1635	3063	3178	1205	1219	833	836	444	416		
ECONOMISTS	2671	1302	1267	551	537	1085	1112	473	472	217	155	78	65		
POLITICAL SCIENTISTS	2672	1009	998	262	296	860	868	208	235	149	130	54	61		
SOCIOLOGISTS	2673	1167	1274	530	519	810	881	295	311	357	393	235	208		
OTHER SOCIAL SCIENTISTS	2674	418	475	306	283	308	317	229	201	110	158	77	82		
TOTAL	2600	14733	14963	7000	5951	10924	11595	4811	4147	3809	3368	2189	1804		

ITEM 3. DISCIPLINES		TOTAL		FULL TIME		PART TIME		TOTAL FTE'S		FTE'S DEVOTED TO R&D		% TOTAL FTE'S DEVOTED TO R&D	
		1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
ENGINEERS (TOTAL)	2710	1299	919	441	587	858	332	721	732	15	15	2.1	2.0
AERONAUTICAL & ASTRONAUTICAL	2711	65	62	45	53	20	9	50	52	0	0	0.0	0.0
CHEMICAL ENGINEERS	2712	5	28	1	17	4	11	2	24	0	0	0.0	0.0
CIVIL ENGINEERS	2713	98	173	55	106	43	67	79	142	0	0	0.0	0.0
ELECTRICAL ENGINEERS	2714	805	295	175	188	630	107	344	233	10	7	2.9	3.0
MECHANICAL ENGINEERS	2715	223	187	107	114	116	73	177	146	1	1	0.6	0.7
OTHER ENGINEERS	2716	103	174	58	109	45	65	69	136	4	7	5.8	9.1
PHYSICAL SCIENTISTS (TOTAL)	2720	3149	3196	2535	2592	614	604	2784	2898	98	86	3.5	2.3
ASTRONOMERS	2721	27	52	16	28	11	24	20	36	1	0	5.0	0.0
CHEMISTS	2722	2023	2029	1669	1676	354	353	1811	1855	50	40	2.8	2.2
PHYSICISTS	2723	1044	1036	814	830	230	206	909	938	46	26	5.1	2.8
OTHER PHYSICAL SCIENTISTS	2724	55	79	36	58	19	21	45	69	0	0	0.0	0.0
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	359	390	263	287	96	103	301	345	6	6	2.0	1.7
ATMOSPHERIC SCIENTISTS	2731	0	9	0	2	0	7	0	4	0	0	0.0	0.0
EARTH SCIENTISTS	2732	279	332	203	249	76	83	233	298	2	2	0.9	0.7
OCEANOGRAPHERS	2733	18	11	4	7	14	4	11	10	4	3	36.4	30.0
OTHER ENVIRONMENTAL SCIENTISTS	2734	62	38	56	29	6	9	38	33	0	1	0.0	3.0
MATHEMATICAL SCIENTISTS (TOTAL)	2740	4399	3850	2588	2554	1811	1296	3369	3138	24	28	0.7	0.9
MATHEMATICIANS	2741	2908	2843	1844	1975	1064	868	2316	2367	17	20	0.7	0.8
COMPUTER SCIENTISTS	2742	1491	1007	744	579	747	428	1053	772	7	8	0.7	1.0
LIFE SCIENTISTS (TOTAL)	2750	4556	4370	3376	3215	1180	1155	3868	3695	56	70	1.4	1.9
AGRICULTURAL SCIENTISTS	2751	171	87	139	68	32	19	148	79	0	0	0.0	0.0
BIOLOGICAL SCIENTISTS	2752	2721	2910	2116	2337	605	573	2377	2605	54	63	2.3	2.4
MEDICAL SCIENTISTS	2753	384	666	234	275	150	387	272	410	2	5	0.7	1.2
OTHER LIFE SCIENTISTS	2754	1280	707	887	531	393	176	1070	601	0	2	0.0	0.3
PSYCHOLOGISTS (TOTAL)	2760	2426	2540	1634	1714	792	826	1930	2057	8	18	0.4	0.9
SOCIAL SCIENTISTS (TOTAL)	2770	5545	5649	3896	4014	1649	1635	4524	4693	31	36	0.7	0.8
ECONOMISTS	2771	1853	1804	1302	1267	551	537	1522	1490	11	9	0.7	0.6
POLITICAL SCIENTISTS	2772	1271	1294	1009	998	262	296	1113	1132	8	8	0.7	0.7
SOCIOLOGISTS	2773	1697	1793	1167	1274	530	519	1380	1488	10	9	0.7	0.6
OTHER SOCIAL SCIENTISTS	2774	724	758	418	475	306	283	509	582	1	10	0.2	1.7
TOTAL	2700	21733	20914	14733	14963	7000	5951	17496	17559	238	239	1.4	1.4

TABLE A1M

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1984
NON SCIENCE DEGREE-GRANTING UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1984 AND JANUARY 1983

ITEM 1. HIGHEST EARNED DEGREE		TOTAL		FULL TIME		PART TIME	
		1984	1983	1984	1983	1984	1983
DOCTOR'S	2210	7415	7674	4981	5086	2434	2588
FIRST PROFESSIONAL	2220	611	870	318	421	293	449
MASTER'S	2230	33547	33872	19799	19905	13748	13967
BACHELOR'S OR THE EQUIVALENT	2240	10036	9834	4320	3975	5716	5859
TOTAL	2200	51609	52250	29418	29387	22191	23863

ITEM 2. DISCIPLINES		TOTAL				MEN				WOMEN			
		FULL TIME		PART TIME		FULL TIME		PART TIME		FULL TIME		PART TIME	
		1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
ENGINEERS (TOTAL)	2610	3670	3401	2807	2820	3584	3306	2740	2738	86	95	67	82
AERONAUTICAL & ASTRONAUTICAL	2611	61	61	42	60	59	57	38	56	2	4	4	4
CHEMICAL ENGINEERS	2612	55	78	13	42	44	69	13	42	11	9	0	0
CIVIL ENGINEERS	2613	569	591	294	376	551	580	292	369	18	11	4	7
ELECTRICAL ENGINEERS	2614	1108	1088	961	907	1088	1069	929	887	20	19	32	20
MECHANICAL ENGINEERS	2615	973	765	539	543	955	751	534	526	18	18	5	17
OTHER ENGINEERS	2616	904	814	954	892	887	780	934	858	17	34	22	34
PHYSICAL SCIENTISTS (TOTAL)	2620	3573	3709	2001	2102	3086	3238	1578	1683	487	471	423	419
ASTRONOMERS	2621	54	86	105	92	51	79	88	85	3	7	17	7
CHEMISTS	2622	2031	2058	1152	1195	1683	1692	793	857	348	366	359	338
PHYSICISTS	2623	1223	1280	572	624	1142	1206	534	579	81	74	38	45
OTHER PHYSICAL SCIENTISTS	2624	265	285	172	191	210	261	163	162	55	24	9	29
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	570	677	292	322	516	609	228	275	54	68	64	47
ATMOSPHERIC SCIENTISTS	2631	19	23	14	32	19	21	14	31	0	2	0	1
EARTH SCIENTISTS	2632	487	549	178	216	437	492	135	177	50	57	43	39
OCEANOGRAPHERS	2633	24	40	61	26	21	38	52	24	3	2	9	2
OTHER ENVIRONMENTAL SCIENTISTS	2634	40	65	39	48	39	58	27	43	1	7	12	5
MATHEMATICAL SCIENTISTS (TOTAL)	2640	6465	6191	7795	7451	4991	4705	5410	5372	1674	1484	2385	2079
MATHEMATICIANS	2641	4736	4648	4827	4828	3498	3505	3087	3193	1238	1143	1740	1635
COMPUTER SCIENTISTS	2642	1929	1543	2968	2623	1493	1200	2323	2179	436	343	645	444
LIFE SCIENTISTS (TOTAL)	2650	7588	7661	3545	3501	3975	4357	1771	1952	3613	3304	1774	1549
AGRICULTURAL SCIENTISTS	2651	869	1022	328	411	808	968	276	337	61	54	52	74
BIOLOGICAL SCIENTISTS	2652	3496	3852	1591	1766	2662	2838	976	1147	834	1014	615	619
MEDICAL SCIENTISTS	2653	1214	1162	718	678	208	262	306	284	1006	900	412	394
OTHER LIFE SCIENTISTS	2654	2009	1625	908	644	297	289	213	184	1712	1336	695	462
PSYCHOLOGISTS (TOTAL)	2660	2519	2680	2131	2416	1638	1792	1234	1428	881	888	897	988
SOCIAL SCIENTISTS (TOTAL)	2670	4833	5068	3620	4251	3952	4096	2743	3259	881	972	877	992
ECONOMISTS	2671	1074	1026	1014	1061	967	908	870	931	107	118	144	130
POLITICAL SCIENTISTS	2672	1140	1181	602	720	1008	1017	483	598	132	164	119	122
SOCIOLOGISTS	2673	1403	1536	1093	1267	1010	1125	683	841	393	411	410	426
OTHER SOCIAL SCIENTISTS	2674	1216	1325	911	1203	967	1046	707	889	249	279	204	314
TOTAL	2600	29418	29387	22191	22863	21742	22103	15704	16707	7676	7284	6487	6156

ITEM 3. DISCIPLINES		TOTAL		FULL TIME		PART TIME		TOTAL FTE'S		FTE'S DEVOTED TO R&D		% TOTAL FTE'S DEVOTED TO R&D	
		1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
ENGINEERS (TOTAL)	2710	6477	6221	3670	3401	2807	2820	7900	4604	0.	3.	0.0	0.1
AERONAUTICAL & ASTRONAUTICAL	2711	103	121	61	61	42	60	78	79	0.	0.	0.0	0.0
CHEMICAL ENGINEERS	2712	68	120	55	78	13	42	61	99	0.	1.	0.0	1.0
CIVIL ENGINEERS	2713	865	967	569	591	296	376	933	753	0.	1.	0.0	0.1
ELECTRICAL ENGINEERS	2714	2069	1995	1108	1088	961	907	3037	1483	0.	1.	0.0	0.1
MECHANICAL ENGINEERS	2715	1512	1312	973	769	539	543	1977	1007	0.	1.	0.0	0.1
OTHER ENGINEERS	2716	1860	1706	904	814	956	892	1815	1183	0.	1.	0.0	0.1
PHYSICAL SCIENTISTS (TOTAL)	2720	5574	5811	3573	3709	2001	2102	4563	4712	8.	17.	0.2	0.4
ASTRONOMERS	2721	159	178	54	86	105	92	99	124	0.	1.	0.0	0.8
CHEMISTS	2722	3183	3253	2031	2058	1152	1195	2598	2642	8.	12.	0.3	0.5
PHYSICISTS	2723	1795	1904	1223	1280	572	624	1521	1577	0.	4.	0.0	0.3
OTHER PHYSICAL SCIENTISTS	2724	437	476	265	285	172	191	345	369	0.	0.	0.0	0.0
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	862	999	570	677	292	322	710	841	0.	1.	0.0	0.1
ATMOSPHERIC SCIENTISTS	2731	33	55	19	23	14	32	29	43	0.	0.	0.0	0.0
EARTH SCIENTISTS	2732	665	765	487	549	178	216	575	664	0.	1.	0.0	0.2
OCEANOGRAPHERS	2733	85	66	24	40	61	26	52	52	0.	0.	0.0	0.0
OTHER ENVIRONMENTAL SCIENTISTS	2734	79	113	40	65	39	48	54	82	0.	0.	0.0	0.0
MATHEMATICAL SCIENTISTS (TOTAL)	2740	14460	13642	6665	6191	7795	7451	10053	9228	6.	21.	0.1	0.2
MATHEMATICIANS	2741	9563	9476	4736	4648	4827	4828	6918	6722	2.	8.	0.0	0.1
COMPUTER SCIENTISTS	2742	4897	4166	1929	1543	2968	2623	3134	2506	4.	13.	0.1	0.5
LIFE SCIENTISTS (TOTAL)	2750	11133	11162	7588	7661	3545	3501	9552	9265	0.	21.	0.0	0.2
AGRICULTURAL SCIENTISTS	2751	1197	1433	869	1022	328	411	1020	1207	0.	1.	0.0	0.1
BIOLOGICAL SCIENTISTS	2752	5087	5618	3496	3852	1591	1766	4333	4748	0.	20.	0.0	0.4
MEDICAL SCIENTISTS	2753	1932	1840	1214	1162	718	678	1555	1414	0.	0.	0.0	0.0
OTHER LIFE SCIENTISTS	2754	2917	2271	2009	1625	908	644	2644	1896	0.	1.	0.0	0.1
PSYCHOLOGISTS (TOTAL)	2760	4650	5096	2519	2680	2131	2416	4266	3682	0.	4.	0.0	0.1
SOCIAL SCIENTISTS (TOTAL)	2770	8453	9319	4833	5068	3620	4251	7006	6896	0.	7.	0.0	0.1
ECONOMISTS	2771	2088	2087	1074	1026	1014	1061	1492	1490	0.	1.	0.0	0.1
POLITICAL SCIENTISTS	2772	1742	1901	1140	1181	602	720	1521	1498	0.	0.	0.0	0.0
SOCIOLOGISTS	2773	2496	2803	1403	1536	1093	1267	2456	2116	0.	2.	0.0	0.1
OTHER SOCIAL SCIENTISTS	2774	2127	2528	1216	1325	911	1203	1536	1792	0.	4.	0.0	0.2
TOTAL	2700	51609	52250	29418	29387	22191	22863	44048	39228	14.	74.	0.0	0.2

TABLE A1W

**SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1984
PUBLIC NON SCIENCE DEGREE-GRANTING UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES**

SCIENTISTS AND ENGINEERS, JANUARY 1984 AND JANUARY 1983

ITEM 1. HIGHEST EARNED DEGREE		TOTAL		FULL TIME		PART TIME	
		1984	1983	1984	1983	1984	1983
DOCTOR'S	2210	6878	7059	4567	4644	2311	2415
FIRST PROFESSIONAL	2220	577	824	309	409	268	415
MASTER'S	2230	32121	31948	18962	18827	13159	13121
BACHELOR'S OR THE EQUIVALENT	2240	9634	9465	4026	3798	5608	5667
TOTAL	2200	49210	49296	27864	27678	21346	21618

ITEM 2. DISCIPLINES		TOTAL		FULL TIME MEN		PART TIME MEN		FULL TIME WOMEN		PART TIME WOMEN	
		1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
ENGINEERS (TOTAL)	2610	3536	3316	2743	2727	3456	3234	2677	2646	80	82
AERONAUTICAL & ASTRONAUTICAL	2611	61	57	42	59	38	53	2	4	4	4
CHEMICAL ENGINEERS	2612	55	74	13	41	13	41	11	9	0	0
CIVIL ENGINEERS	2613	551	582	277	367	534	571	274	360	17	11
ELECTRICAL ENGINEERS	2614	1049	1058	941	867	1029	1044	909	848	20	14
MECHANICAL ENGINEERS	2615	925	741	524	511	912	729	519	494	13	12
OTHER ENGINEERS	2616	895	804	946	882	878	772	924	848	17	32
PHYSICAL SCIENTISTS (TOTAL)	2620	3345	3467	1942	1948	2888	3031	1538	1568	457	436
ASTRONOMERS	2621	54	80	102	91	51	76	86	84	3	4
CHEMISTS	2622	1912	1918	1104	1107	1588	1579	763	802	324	339
PHYSICISTS	2623	1132	1203	564	572	1052	1132	526	528	80	71
OTHER PHYSICAL SCIENTISTS	2624	247	266	172	178	197	244	163	154	50	22
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	519	644	292	309	465	582	228	268	54	62
ATMOSPHERIC SCIENTISTS	2631	12	23	14	32	12	21	14	31	0	2
EARTH SCIENTISTS	2632	443	523	178	203	393	470	135	170	50	53
OCEANOGRAPHERS	2633	24	40	61	26	21	38	52	24	3	2
OTHER ENVIRONMENTAL SCIENTISTS	2634	40	58	39	48	39	53	27	43	1	5
MATHEMATICAL SCIENTISTS (TOTAL)	2640	6322	5852	7441	7121	4730	4460	5185	5151	1592	1392
MATHEMATICIANS	2641	4480	4379	4656	4612	3310	3314	2969	3061	1170	1065
COMPUTER SCIENTISTS	2642	1842	1473	2785	2509	1420	1146	2216	2090	422	377
LIFE SCIENTISTS (TOTAL)	2650	7327	7167	3437	3255	3771	4075	1713	1851	3556	3092
AGRICULTURAL SCIENTISTS	2651	867	966	299	402	806	915	248	329	61	51
BIOLOGICAL SCIENTISTS	2652	3267	3542	1559	1632	2462	2624	957	1073	805	918
MEDICAL SCIENTISTS	2653	1203	1125	714	640	208	254	305	274	995	871
OTHER LIFE SCIENTISTS	2654	1990	1534	865	581	295	282	263	175	1695	1252
PSYCHOLOGISTS (TOTAL)	2660	2292	2497	2062	2269	1501	1673	1172	1339	791	824
SOCIAL SCIENTISTS (TOTAL)	2670	4523	4735	3429	3989	3686	3837	2605	3069	837	898
ECONOMISTS	2671	1011	929	896	972	904	823	755	855	107	106
POLITICAL SCIENTISTS	2672	1024	1102	594	672	903	953	476	557	121	149
SOCIOLOGISTS	2673	1319	1434	1042	1179	942	1054	671	781	377	380
OTHER SOCIAL SCIENTISTS	2674	1169	1270	897	1166	937	1007	703	876	232	263
TOTAL	2600	27864	27678	21346	21618	20497	20892	15118	15892	7367	6786

ITEM 3. DISCIPLINES		TOTAL		FULL TIME		PART TIME		TOTAL FTE'S		FTE'S DEVOTED TO R&D		% TOTAL FTE'S DEVOTED TO R&D	
		1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
ENGINEERS (TOTAL)	2710	6279	6043	3536	3316	2743	2727	7739	4466	0.	3.	0.0	0.1
AERONAUTICAL & ASTRONAUTICAL	2711	103	116	61	57	42	59	78	75	0.	0.	0.0	0.0
CHEMICAL ENGINEERS	2712	68	115	55	74	13	41	61	94	0.	1.	0.0	1.1
CIVIL ENGINEERS	2713	828	949	551	582	277	367	910	736	0.	0.	0.0	0.0
ELECTRICAL ENGINEERS	2714	1990	1925	1049	1058	941	867	2968	1433	0.	1.	0.0	0.1
MECHANICAL ENGINEERS	2715	1449	1252	925	741	524	511	1921	961	0.	1.	0.0	0.1
OTHER ENGINEERS	2716	1841	1686	895	804	946	882	1801	1168	0.	1.	0.0	0.1
PHYSICAL SCIENTISTS (TOTAL)	2720	5287	5415	3345	3467	1942	1948	4306	4372	8.	6.	0.2	0.1
ASTRONOMERS	2721	156	171	54	80	102	91	98	117	0.	1.	0.0	0.9
CHEMISTS	2722	3016	3025	1912	1918	1104	1107	2458	2446	8.	3.	0.3	0.1
PHYSICISTS	2723	1696	1775	1132	1203	564	572	1423	1467	0.	3.	0.0	0.2
OTHER PHYSICAL SCIENTISTS	2724	419	444	247	266	172	178	327	342	0.	0.	0.0	0.0
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	811	953	519	644	292	309	659	800	0.	1.	0.0	0.1
ATMOSPHERIC SCIENTISTS	2731	26	55	12	23	14	32	22	43	0.	0.	0.0	0.0
EARTH SCIENTISTS	2732	621	726	443	523	178	203	531	629	0.	1.	0.0	0.2
OCEANOGRAPHERS	2733	85	66	24	40	61	26	52	52	0.	0.	0.0	0.0
OTHER ENVIRONMENTAL SCIENTISTS	2734	79	106	40	58	39	48	54	75	0.	0.	0.0	0.0
MATHEMATICAL SCIENTISTS (TOTAL)	2740	13763	12973	6322	5852	7441	7121	9522	8709	6.	17.	0.1	0.2
MATHEMATICIANS	2741	9136	8991	4480	4379	4656	4612	6589	6339	2.	4.	0.0	0.1
COMPUTER SCIENTISTS	2742	4627	3982	1842	1473	2785	2509	2933	2369	4.	13.	0.1	0.5
LIFE SCIENTISTS (TOTAL)	2750	10764	10422	7327	7167	3437	3255	9241	8639	0.	7.	0.0	0.1
AGRICULTURAL SCIENTISTS	2751	1166	1368	867	966	299	402	1003	1145	0.	0.	0.0	0.0
BIOLOGICAL SCIENTISTS	2752	4826	5174	3267	3542	1559	1632	4093	4365	0.	7.	0.0	0.2
MEDICAL SCIENTISTS	2753	1917	1765	1203	1125	714	640	1942	1361	0.	0.	0.0	0.0
OTHER LIFE SCIENTISTS	2754	2855	2115	1990	1534	865	581	2603	1769	0.	1.	0.0	0.1
PSYCHOLOGISTS (TOTAL)	2760	4354	4764	2292	2497	2062	2269	4014	3432	0.	4.	0.0	0.1
SOCIAL SCIENTISTS (TOTAL)	2770	7952	8724	4523	4735	3429	3989	6590	6413	0.	5.	0.0	0.1
ECONOMISTS	2771	1907	1901	1011	929	896	972	1354	1338	0.	1.	0.0	0.1
POLITICAL SCIENTISTS	2772	1618	1776	1024	1102	594	672	1404	1391	0.	0.	0.0	0.0
SOCIOLOGISTS	2773	2361	2613	1319	1434	1042	1179	2347	1961	0.	0.	0.0	0.0
OTHER SOCIAL SCIENTISTS	2774	2066	2436	1169	1270	897	1166	1485	1723	0.	4.	0.0	0.2
TOTAL	2700	49210	49296	27864	27678	21346	21618	42071	36832	14.	42.	0.0	0.1

TABLE A10

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1984
PRIVATE NON SCIENCE DEGREE-GRANTING UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1984 AND JANUARY 1983

ITEM 1. HIGHEST EARNED DEGREE		TOTAL		FULL TIME		PART TIME	
		1984	1983	1984	1983	1984	1983
DOCTOR'S	2210	537	615	414	442	123	173
FIRST PROFESSIONAL	2220	34	46	9	12	25	34
MASTER'S	2230	1426	1924	837	1078	589	846
BACHELOR'S OR THE EQUIVALENT	2240	402	369	294	177	108	192
TOTAL	2200	2399	2954	1554	1709	845	1245

ITEM 2. DISCIPLINES		TOTAL				MEN				WOMEN			
		FULL TIME		PART TIME		FULL TIME		PART TIME		FULL TIME		PART TIME	
		1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
ENGINEERS (TOTAL)	2610	134	85	64	93	128	72	63	92	6	13	1	1
AERONAUTICAL & ASTRONAUTICAL	2611	0	4	0	1	0	4	0	1	0	0	0	0
CHEMICAL ENGINEERS	2612	0	4	0	1	0	4	0	1	0	0	0	0
CIVIL ENGINEERS	2613	18	9	19	9	17	9	18	9	1	0	1	0
ELECTRICAL ENGINEERS	2614	59	30	20	40	59	25	20	39	0	5	0	1
MECHANICAL ENGINEERS	2615	48	28	15	32	43	22	15	32	5	6	0	0
OTHER ENGINEERS	2616	9	10	10	10	9	8	10	10	0	2	0	0
PHYSICAL SCIENTISTS (TOTAL)	2620	228	242	59	154	198	207	40	115	30	35	19	39
ASTRONOMERS	2621	0	6	3	1	0	3	2	1	0	3	1	0
CHEMISTS	2622	119	140	48	88	95	113	30	55	24	27	18	33
PHYSICISTS	2623	91	77	8	52	90	74	8	51	1	3	0	1
OTHER PHYSICAL SCIENTISTS	2624	18	19	0	13	13	17	0	7	5	2	0	5
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	51	33	0	13	51	27	0	7	0	0	0	6
ATMOSPHERIC SCIENTISTS	2631	7	0	0	0	7	0	0	0	0	0	0	0
EARTH SCIENTISTS	2632	44	26	0	13	44	22	0	7	0	4	0	6
OCEANOGRAPHERS	2633	0	0	0	0	0	0	0	0	0	0	0	0
OTHER ENVIRONMENTAL SCIENTISTS	2634	0	7	0	0	0	5	0	0	0	2	0	0
MATHEMATICAL SCIENTISTS (TOTAL)	2640	343	339	354	330	261	245	225	221	82	94	129	109
MATHEMATICIANS	2641	256	269	171	216	188	191	118	132	68	78	53	84
COMPUTER SCIENTISTS	2642	87	70	183	114	73	54	107	89	14	16	76	25
LIFE SCIENTISTS (TOTAL)	2650	361	494	108	246	204	282	58	101	57	212	50	145
AGRICULTURAL SCIENTISTS	2651	2	56	29	9	2	53	28	8	0	3	1	1
BIOLOGICAL SCIENTISTS	2652	229	310	32	134	200	214	19	74	29	96	13	60
MEDICAL SCIENTISTS	2653	11	37	4	38	0	8	1	10	11	29	3	28
OTHER LIFE SCIENTISTS	2654	19	91	43	65	2	7	10	9	17	84	33	56
PSYCHOLOGISTS (TOTAL)	2660	227	183	69	147	137	119	62	89	90	64	7	58
SOCIAL SCIENTISTS (TOTAL)	2670	310	333	191	262	266	259	138	190	44	74	53	72
ECONOMISTS	2671	114	79	118	89	63	85	115	76	0	12	3	13
POLITICAL SCIENTISTS	2672	84	102	51	88	68	71	12	60	16	31	39	28
SOCIOLOGISTS	2673	47	55	14	37	30	39	4	13	17	16	10	24
OTHER SOCIAL SCIENTISTS	2674												
TOTAL	2600	1554	1709	845	1245	1245	1211	586	815	309	498	259	430

ITEM 3. DISCIPLINES		TOTAL		FULL TIME		PART TIME		TOTAL FTE'S		FTE'S DEVOTED TO R&D		% TOTAL FTE'S DEVOTED TO R&D	
		1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
ENGINEERS (TOTAL)	2710	198	178	134	85	64	93	161.	137.	0.	1.	0.0	0.7
AERONAUTICAL & ASTRONAUTICAL	2711	0	5	0	4	0	1	0.	4.	0.	0.	0.0	0.0
CHEMICAL ENGINEERS	2712	0	5	0	4	0	1	0.	5.	0.	0.	0.0	0.0
CIVIL ENGINEERS	2713	37	18	18	9	19	9	23.	17.	0.	0.	0.0	5.9
ELECTRICAL ENGINEERS	2714	79	70	59	30	20	40	69.	50.	0.	1.	0.0	0.0
MECHANICAL ENGINEERS	2715	63	60	48	28	15	32	36.	44.	0.	0.	0.0	0.0
OTHER ENGINEERS	2716	19	20	9	10	10	10	14.	15.	0.	0.	0.0	0.0
PHYSICAL SCIENTISTS (TOTAL)	2720	287	396	228	242	59	154	257.	340.	0.	11.	0.0	3.2
ASTRONOMERS	2721	3	7	0	6	3	1	2.	7.	0.	0.	0.0	0.0
CHEMISTS	2722	167	228	119	140	48	88	140.	196.	0.	9.	0.0	4.6
PHYSICISTS	2723	99	129	91	77	8	52	98.	110.	0.	1.	0.0	0.9
OTHER PHYSICAL SCIENTISTS	2724	18	32	18	19	0	13	18.	27.	0.	0.	0.0	0.0
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	51	46	51	33	0	13	51.	42.	0.	0.	0.0	0.0
ATMOSPHERIC SCIENTISTS	2731	7	0	7	0	0	0	7.	0.	0.	0.	0.0	0.0
EARTH SCIENTISTS	2732	44	39	44	26	0	13	44.	35.	0.	0.	0.0	0.0
OCEANOGRAPHERS	2733	0	0	0	0	0	0	0.	0.	0.	0.	0.0	0.0
OTHER ENVIRONMENTAL SCIENTISTS	2734	0	7	0	7	0	0	0.	7.	0.	0.	0.0	0.0
MATHEMATICAL SCIENTISTS (TOTAL)	2740	697	669	343	339	354	330	531.	519.	0.	4.	0.0	0.8
MATHEMATICIANS	2741	427	485	256	269	171	216	329.	383.	0.	4.	0.0	1.0
COMPUTER SCIENTISTS	2742	270	184	87	70	183	114	201.	136.	0.	0.	0.0	0.0
LIFE SCIENTISTS (TOTAL)	2750	369	740	261	494	108	246	310.	625.	0.	14.	0.0	2.2
AGRICULTURAL SCIENTISTS	2751	31	65	2	56	29	9	17.	62.	0.	0.	0.0	0.0
BIOLOGICAL SCIENTISTS	2752	261	444	229	310	32	134	240.	383.	0.	13.	0.0	3.4
MEDICAL SCIENTISTS	2753	15	75	11	37	4	38	13.	53.	0.	0.	0.0	0.0
OTHER LIFE SCIENTISTS	2754	62	156	19	91	43	65	41.	127.	0.	0.	0.0	0.0
PSYCHOLOGISTS (TOTAL)	2760	296	330	227	183	69	147	252.	250.	0.	0.	0.0	0.0
SOCIAL SCIENTISTS (TOTAL)	2770	501	595	310	333	191	262	416.	483.	0.	2.	0.0	0.4
ECONOMISTS	2771	181	186	63	97	118	89	138.	152.	0.	0.	0.0	0.0
POLITICAL SCIENTISTS	2772	124	127	116	79	8	48	118.	107.	0.	0.	0.0	0.0
SOCIOLOGISTS	2773	135	190	84	102	51	88	109.	155.	0.	2.	0.0	1.3
OTHER SOCIAL SCIENTISTS	2774	61	92	47	55	14	37	52.	69.	0.	0.	0.0	0.0
TOTAL	2700	2399	2954	1554	1709	845	1245	1978.	2396.	0.	32.	0.0	1.3

TABLE A1P

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1984
FEDERALLY FUNDED RESEARCH & DEVELOPMENT CENTERS
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1984 AND JANUARY 1983

ITEM 1. HIGHEST EARNED DEGREE		TOTAL		FULL TIME		PART TIME	
		1984	1983	1984	1983	1984	1983
DOCTOR'S	2210	6530	6301	6384	6148	146	153
FIRST PROFESSIONAL	2220	68	34	62	30	6	6
MASTER'S	2230	3703	3637	3547	3498	156	139
BACHELOR'S OR THE EQUIVALENT	2240	4912	5725	4666	4895	246	230
TOTAL	2200	15213	15099	14659	14571	554	528

ITEM 2. DISCIPLINES		TOTAL				MEN				WOMEN			
		FULL TIME		PART TIME		FULL TIME		PART TIME		FULL TIME		PART TIME	
		1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
ENGINEERS (TOTAL)	2610	5868	6385	123	153	5691	6200	101	121	177	185	22	32
AERONAUTICAL & ASTRONAUTICAL	2611	182	234	3	9	176	228	3	9	6	6	0	0
CHEMICAL ENGINEERS	2612	280	266	12	9	263	253	7	7	17	13	5	2
CIVIL ENGINEERS	2613	260	244	5	4	252	240	4	3	8	4	1	1
ELECTRICAL ENGINEERS	2614	2223	2200	36	46	2147	2142	32	42	76	58	4	4
MECHANICAL ENGINEERS	2615	1493	1497	31	38	1465	1475	25	35	28	22	6	3
OTHER ENGINEERS	2616	1430	1944	36	47	1388	1862	30	25	42	82	6	22
PHYSICAL SCIENTISTS (TOTAL)	2620	5476	5253	205	182	5178	4981	152	141	298	272	53	41
ASTRONOMERS	2621	295	153	10	3	278	144	10	3	17	9	0	0
CHEMISTS	2622	1353	1333	55	40	1219	1209	26	17	134	124	29	23
PHYSICISTS	2623	3402	3363	122	121	3269	3240	106	105	133	123	16	16
OTHER PHYSICAL SCIENTISTS	2624	426	404	18	18	412	388	10	16	14	16	8	2
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	730	707	43	42	635	608	25	23	95	99	18	19
ATMOSPHERIC SCIENTISTS	2631	211	191	9	6	192	170	6	2	19	21	3	9
EARTH SCIENTISTS	2632	211	216	19	23	186	189	11	14	25	27	0	0
OCEANOGRAPHERS	2633	20	19	1	0	17	17	1	0	3	2	0	0
OTHER ENVIRONMENTAL SCIENTISTS	2634	288	281	14	13	240	232	7	7	48	49	7	6
MATHEMATICAL SCIENTISTS (TOTAL)	2640	1636	1426	110	100	1270	1136	59	52	366	290	51	48
MATHEMATICIANS	2641	740	675	32	30	573	549	19	16	167	126	13	14
COMPUTER SCIENTISTS	2642	896	751	78	70	697	587	40	36	199	164	38	34
LIFE SCIENTISTS (TOTAL)	2650	732	707	62	46	522	505	25	18	210	202	37	28
AGRICULTURAL SCIENTISTS	2651	0	3	0	0	0	3	0	0	0	0	0	0
BIOLOGICAL SCIENTISTS	2652	511	519	46	33	369	372	19	13	142	147	27	20
MEDICAL SCIENTISTS	2653	114	58	9	5	84	45	6	4	30	13	3	7
OTHER LIFE SCIENTISTS	2654	107	127	7	8	69	85	0	1	38	42	7	7
PSYCHOLOGISTS (TOTAL)	2660	34	5	2	1	23	3	1	0	11	2	1	1
SOCIAL SCIENTISTS (TOTAL)	2670	183	88	9	4	135	78	2	1	48	10	7	3
ECONOMISTS	2671	87	57	2	1	72	53	0	1	15	4	2	0
POLITICAL SCIENTISTS	2672	22	15	2	1	19	13	1	0	3	2	1	1
SOCIOLOGISTS	2673	6	2	1	1	1	2	0	0	5	0	1	1
OTHER SOCIAL SCIENTISTS	2674	68	14	4	1	43	10	1	0	25	4	3	1
TOTAL	2600	14659	14571	554	528	13454	13511	365	356	1205	1060	189	172

ITEM 3. DISCIPLINES		TOTAL		FULL TIME		PART TIME		TOTAL FTE'S		FTE'S DEVOTED TO R&D		% TOTAL FTE'S DEVOTED TO R&D	
		1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
ENGINEERS (TOTAL)	2710	5991	6538	5868	6385	123	153	5929	6492	5927	6485	100.0	99.9
AERONAUTICAL & ASTRONAUTICAL	2711	185	243	182	234	3	9	184	243	184	243	100.0	100.0
CHEMICAL ENGINEERS	2712	292	275	280	266	12	9	286	270	286	270	100.0	100.0
CIVIL ENGINEERS	2713	265	248	260	244	5	4	263	246	263	246	100.0	100.0
ELECTRICAL ENGINEERS	2714	2259	2246	2223	2200	36	46	2242	2230	2241	2227	100.0	99.9
MECHANICAL ENGINEERS	2715	1524	1535	1493	1497	31	38	1508	1524	1507	1520	99.9	99.7
OTHER ENGINEERS	2716	1466	1991	1430	1944	36	47	1447	1979	1446	1979	99.9	100.0
PHYSICAL SCIENTISTS (TOTAL)	2720	5681	5435	5476	5253	205	182	5580	5347	5480	5347	98.2	100.0
ASTRONOMERS	2721	305	156	295	153	10	3	302	155	302	155	100.0	100.0
CHEMISTS	2722	1408	1373	1353	1333	55	40	1381	1345	1381	1345	100.0	100.0
PHYSICISTS	2723	3524	3484	3402	3363	122	121	3463	3434	3363	3434	97.1	100.0
OTHER PHYSICAL SCIENTISTS	2724	444	422	426	404	18	18	435	414	434	414	99.8	100.0
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	773	749	730	707	43	42	755	729	755	729	100.0	100.0
ATMOSPHERIC SCIENTISTS	2731	220	197	211	191	9	6	217	195	217	195	100.0	100.0
EARTH SCIENTISTS	2732	230	239	211	216	19	23	221	229	221	229	100.0	100.0
OCEANOGRAPHERS	2733	21	19	20	19	1	0	21	18	21	18	100.0	100.0
OTHER ENVIRONMENTAL SCIENTISTS	2734	302	294	288	281	14	13	296	287	296	287	100.0	100.0
MATHEMATICAL SCIENTISTS (TOTAL)	2740	1746	1526	1636	1426	110	100	1697	1480	1697	1480	100.0	100.0
MATHEMATICIANS	2741	772	705	740	675	32	30	759	696	759	696	100.0	100.0
COMPUTER SCIENTISTS	2742	974	821	896	751	78	70	938	785	938	785	100.0	100.0
LIFE SCIENTISTS (TOTAL)	2750	794	753	732	707	62	46	766	731	766	729	100.0	99.7
AGRICULTURAL SCIENTISTS	2751	0	3	0	3	0	0	0	3	0	3	0.0	100.0
BIOLOGICAL SCIENTISTS	2752	557	557	51	519	46	33	536	536	536	534	100.0	99.6
MEDICAL SCIENTISTS	2753	123	63	114	58	9	5	119	60	119	60	100.0	100.0
OTHER LIFE SCIENTISTS	2754	114	135	107	127	7	8	112	133	112	133	100.0	100.0
PSYCHOLOGISTS (TOTAL)	2760	36	6	34	5	2	1	35	6	35	6	100.0	100.0
SOCIAL SCIENTISTS (TOTAL)	2770	192	92	183	88	9	4	188	91	152	91	80.9	100.0
ECONOMISTS	2771	89	58	87	57	2	1	88	58	88	58	100.0	100.0
POLITICAL SCIENTISTS	2772	24	16	22	15	2	1	23	16	23	16	100.0	100.0
SOCIOLOGISTS	2773	7	3	6	2	1	1	7	3	4	3	57.1	100.0
OTHER SOCIAL SCIENTISTS	2774	72	15	68	14	4	1	70	15	37	15	52.9	100.0
TOTAL	2700	15213	15099	14659	14571	554	528	14950	14875	14812	14866	99.1	99.9

university- administered ffrdc's: january 1984

department of defense

Center for Naval Analyses (University of Rochester).

Lincoln Laboratory (Massachusetts Institute of Technology).

department of energy

Ames Laboratory (Iowa State University of Science and Technology).

Argonne National Laboratory (University of Chicago and Argonne Universities Association).

Brookhaven National Laboratory (Associated Universities, Inc.).

E. O. Lawrence Berkeley Laboratory (University of California).

E. O. Lawrence Livermore Laboratory (University of California).

Los Alamos Scientific Laboratory (University of California).

Fermi National Accelerator Laboratory (Universities Research Association).

Oak Ridge Institute of Nuclear Studies (Oak Ridge Associated Universities).

Plasma Physics Laboratory (Princeton University).

Stanford Linear Accelerator Center (Stanford University).

national aeronautics and space administration

Jet Propulsion Laboratory (California Institute of Technology).

national science foundation

Cerro Tololo Inter-American Observatory (Association of Universities for Research in Astronomy, Inc.).

National Astronomy and Ionosphere Center (Cornell University).

Kitt Peak National Observatory (Association of Universities for Research in Astronomy, Inc.).

National Center for Atmospheric Research (University Corporation for Atmospheric Research).

National Radio Astronomy Observatory (Associated Universities, Inc.).

Sacramento Peak Observatory (Association of Universities for Research in Astronomy, Inc.).

reproduction of survey instruments

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Re: Survey of Scientific and Engineering
Personnel Employed at Universities and
Colleges, January 1984

Dear Colleague:

This survey is one element of the system that makes up the Integrated Data Base covering scientific and engineering (S/E) resources at academic and selected nonprofit institutions. This data base is managed by the Universities and Nonprofit Institutions Studies Group (UNISG), Mrs. Penny D. Foster, Study Director. Information for the survey is solicited under the authority of the National Science Foundation Act of 1950, as amended. Your participation in it is entirely voluntary, and failure to participate will not affect your institution adversely in any way. Information provided is for statistical use only.

This package contains:

- January 1984 S/E Personnel Survey Form 724A, with instructions Form 724B
- Facsimile
- NSF/NCES "Crosswalk" defining S/E fields
- Postcard to notify NSF of receipt of package
- Envelope for mailing completed form

THE JANUARY 1984 SURVEY FORM 724A WITH INSTRUCTIONS FORM 724B

The 1984 form requests the same information as the 1983 form. In an effort to maintain consistency among NSF field of science/engineering codes and the NCES Classification of Instructional Programs (NCES 81-323) we have moved three of the disciplines—ceramic engineering from chemical engineering to other engineering; marine engineering from civil engineering to other engineering and food science and technology from agricultural sciences to biological sciences. A facsimile is attached that shows data received from your institution.

NSF/NCES CROSSWALK

The crosswalk connects NSF's S/E fields with the National Center for Education Statistics Classification of Instructional Programs (NCES 81-323). It is provided to aid respondents whose institutional recordkeeping systems are organized according to NCES classifications.

POSTCARD

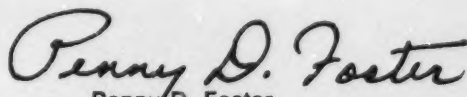
As soon as you receive this survey package, please let us know by filling out and mailing the postcard enclosed, stating the name and telephone number of the person completing the survey form.

RETURN ENVELOPE

A return, postage-paid envelope is provided for your use in sending in the completed survey form.

NSF CONTACT

If questions arise when completing the survey form, please call Ms. Judith Coakley or Ms. Esther Gist at (202) 634-4673. Thank you for your efforts in providing timely and meaningful statistics to NSF.



Penny D. Foster
Study Director
Universities and Nonprofit Institutions
Studies Group
Division of Science Resources Studies

Enclosures

NATIONAL SCIENCE FOUNDATION
Washington, D.C. 20550

**SURVEY OF SCIENTIFIC AND ENGINEERING PERSONNEL
EMPLOYED AT UNIVERSITIES AND COLLEGES, JANUARY 1984**

Organizations are requested to complete and return this form to:

NATIONAL SCIENCE FOUNDATION
1800 G Street, N.W., Room L-602
Washington, D.C. 20550—Attn: UNISG

This information is solicited under the authority of Section 3 (a) (6) of the National Science Foundation Act of 1950, as amended (42 U.S. Code 1862 (a) (6)). Your response is entirely voluntary and your failure to provide some or all of the information will in no way adversely affect your institution.

Please correct if name or address has changed.

This survey requests scientific and engineering (S/E) employment data according to institutional recordkeeping conventions. **The completed 1984 questionnaire should be returned by March 15, 1984.** Your prompt cooperation will be appreciated. If you determine, however, that you cannot respond by March 15, please notify NSF and request an extension of time.

Please read the enclosed instructions before completing this form. If you have any questions, contact Ms. Judith Coakley or Ms. Esther Gist (202-634-4673). Please complete all columns; estimates by academic officials will be better than NSF estimates.

All entries should be in whole numbers; please do not enter decimals or fractions, except in item 3, columns 2 and 3, where two decimal places are optional.

SURVEY POPULATION

Include data for ALL ORGANIZATIONAL UNITS OF YOUR INSTITUTION THAT EMPLOY SCIENTISTS AND ENGINEERS, such as regional campuses, computer centers, medical schools, agricultural experiment stations, and associated research units. Also include any hospital or clinic owned, operated, or controlled by your university and integrated operationally with the clinical programs of your medical schools.

Federally Funded Research and Development Centers (FFRDC's)

Separate forms have been mailed directly to all FFRDC's administered by academic institutions. A list of these centers appears on page 3 of the Instructions and Definitions.

INSTITUTIONAL CLASSIFICATION

Highest degree granted in the sciences or engineering during 1983-84	Check one	One example of a science or engineering field in which highest degree was awarded	Check primary administrative control of your institution
Doctor's degree, e.g., Ph.D., D. Eng., or D.E.S.	☐	_____	Federal ☐
First-professional degree, e.g., M.D., D.D.S., D.V.M., etc.	☐	_____	State ☐
Master's degree	☐	_____	Local ☐
Bachelor's degree	☐	_____	Private ☐
Associate or other 2-year award	☐	_____	
No degrees granted in the sciences or engineering	☐	_____	

Item 1. Total number of scientists and engineers by highest earned degree and employment status: January 1984				
HIGHEST EARNED DEGREE		HEADCOUNTS		
		TOTAL (1)	FULL TIME (2)	PART TIME (3)
a. Doctor's degree, e.g., Ph. D., D. Eng., or D.E.S.	2210			
b. First-professional degree, e.g., M.D., D.D.S., D.V.M., etc.	2220			
c. Master's degree	2230			
d. Bachelor's degree or the equivalent	2240			
e. Total (sum of a through d)	2200			

NOTE: To ensure proper data comparability between item 1, line 2200, and items 2 and 3:

- a) Line 2200, column 1 should equal item 3, line 2700, column 1;
- b) Line 2200, column 2 should equal item 2, line 2600, column 1;
- c) Line 2200, column 3 should equal item 2, line 2600, column 2.

Item 2.	Total number of scientists and engineers by discipline, sex, and employment status: January 1984						
	S/E DISCIPLINES ¹	HEADCOUNTS					
		TOTAL		MEN		WOMEN	
		Full time	Part time	Full time	Part time	Full time	Part time
		(1)	(2)	(3)	(4)	(5)	(6)
a. Engineers (total)	2610						
(1) Aeronautical and aeronautical engineers ..	2611						
(2) Chemical engineers	2612						
(3) Civil engineers	2613						
(4) Electrical engineers	2614						
(5) Mechanical engineers	2615						
(6) Other engineers	2616						
b. Physical scientists (total)	2620						
(1) Astronomers	2621						
(2) Chemists	2622						
(3) Physicists	2623						
(4) Other physical scientists ..	2624						
c. Environ. scientists (total)	2630						
(1) Atmospheric scientists ...	2631						
(2) Earth scientists	2632						
(3) Oceanographers	2633						
(4) Other environ. sci.	2634						
d. Mathematical and computer scientists (total)	2640						
(1) Mathematicians (exclude computer scientists)	2641						
(2) Computer scientists (exclude programmers) ..	2642						
e. Life scientists (total)	2650						
(1) Agricultural scientists	2651						
(2) Biological scientists	2652						
(3) Medical scientists (see instructions, p. 4)	2653						
(4) Other life scientists	2654						
f. Psychologists (total)	2660						
g. Social scientists (total) (exclude historians)	2670						
(1) Economists	2671						
(2) Political scientists	2672						
(3) Sociologists	2673						
(4) Other social scientists	2674						
h. Total (sum of a thru g)	2600						

PLEASE EXCLUDE from your response any employees in the fields of education, law, humanities, music, the arts, physical education, library science, and all other nonscience fields.

¹See enclosed Crosswalk between NSF's S/E disciplines and the codes in the NCES Classification of Instructional Programs.

Item 3.	Total number of scientists and engineers by discipline, estimated full-time equivalents, and R&D activity: January 1984				
	S/E Disciplines	Total headcounts ¹	Estimated full-time-equivalents (FTE's)		
			Total FTE's ²	FTE's devoted to separately budgeted R&D ³	
				Number	Percent (optional) ⁴
a. Engineers (total)	2710				
(1) Aeronautical and astronautical engineers	2711				%
(2) Chemical engineers	2712				%
(3) Civil engineers	2713				%
(4) Electrical engineers	2714				%
(5) Mechanical engineers	2715				%
(6) Other engineers	2716				%
b. Physical scientists (total)	2720				
(1) Astronomers	2721				%
(2) Chemists	2722				%
(3) Physicists	2723				%
(4) Other physical scientists	2724				%
c. Environmental scientists (total)	2730				
(1) Atmospheric scientists	2731				%
(2) Earth scientists	2732				%
(3) Oceanographers	2733				%
(4) Other environmental scientists	2734				%
d. Mathematical and computer scientists (total)	2740				
(1) Mathematicians (exclude computer scientists)	2741				%
(2) Computer scientists (exclude programmers)	2742				%
e. Life scientists (total)	2750				
(1) Agricultural scientists	2751				%
(2) Biological scientists	2752				%
(3) Medical scientists (see instructions, p. 4)	2753				%
(4) Other life scientists	2754				%
f. Psychologists (total)	2760				
g. Social scientists (total) (exclude historians)	2770				
(1) Economists	2771				%
(2) Political scientists	2772				%
(3) Sociologists	2773				%
(4) Other social scientists	2774				%
h. Total (sum of a thru g)	2700				

¹Line 2700, column 1, should equal item 1, line 2200, column 1.

²Include all activities, e.g., teaching, separately budgeted R&D, etc., of all individuals reported in column 1.

³See section 8 in Instructions for definition of "separately budgeted R&D expenditures."

⁴Column 4 has been provided for the convenience of those institutions that estimate the number (column 3) of FTE's devoted to separately budgeted R&D activities by use of a percentage (column 4) in each discipline.

CHECK LIST [] 1. Are all entries rounded to whole numbers? Please do not enter fractions or decimals, except in columns 2 and 3 where two decimal places are optional. [] 2. Do the data add to subtotals? [] 3. Are all columns completed? YOUR estimates will be better than OURS. An explanation of estimates may be noted on a separate sheet or in the REMARKS. [] 4. Are all branches and components such as medical school, computer center, agricultural experiment station, and associated research units included? [] 5. Have you INCLUDED all postdoctorates? [] 6. Have you EXCLUDED graduate students?	1983-84 DATA CHECK (For your convenience) Please compare your January 1983 survey response with your survey response for January 1984, particularly for the totals. Please explain below or on a separate sheet any significant changes. Where possible, indicate any required adjustments in data reported in previous years. <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center; border-bottom: 1px solid black;">1983</th> <th style="text-align: center; border-bottom: 1px solid black;">1984</th> </tr> <tr> <th></th> <th style="text-align: center; border-bottom: 1px solid black;">Line 2600, column 1.</th> <th style="text-align: center; border-bottom: 1px solid black;">Line 2600, column 1.</th> </tr> </thead> <tbody> <tr> <td>Total full-time scientists and engineers</td> <td style="border: 1px solid black; height: 20px;"></td> <td style="border: 1px solid black; height: 20px;"></td> </tr> <tr> <td></td> <td style="text-align: center; border-bottom: 1px solid black;">Line 2600, column 2.</td> <td style="text-align: center; border-bottom: 1px solid black;">Line 2600, column 2.</td> </tr> <tr> <td>Total part-time scientists and engineers</td> <td style="border: 1px solid black; height: 20px;"></td> <td style="border: 1px solid black; height: 20px;"></td> </tr> <tr> <td></td> <td style="text-align: center; border-bottom: 1px solid black;">Line 2700, column 2.</td> <td style="text-align: center; border-bottom: 1px solid black;">Line 2700, column 2.</td> </tr> <tr> <td>Total FTE's</td> <td style="border: 1px solid black; height: 20px;"></td> <td style="border: 1px solid black; height: 20px;"></td> </tr> <tr> <td></td> <td style="text-align: center; border-bottom: 1px solid black;">Line 2700, column 3.</td> <td style="text-align: center; border-bottom: 1px solid black;">Line 2700, column 3.</td> </tr> <tr> <td>Total FTE's in R&D</td> <td style="border: 1px solid black; height: 20px;"></td> <td style="border: 1px solid black; height: 20px;"></td> </tr> </tbody> </table>		1983	1984		Line 2600, column 1.	Line 2600, column 1.	Total full-time scientists and engineers				Line 2600, column 2.	Line 2600, column 2.	Total part-time scientists and engineers				Line 2700, column 2.	Line 2700, column 2.	Total FTE's				Line 2700, column 3.	Line 2700, column 3.	Total FTE's in R&D		
	1983	1984																										
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Total FTE's																												
	Line 2700, column 3.	Line 2700, column 3.																										
Total FTE's in R&D																												
CONFIDENTIALITY The National Science Foundation recognizes that its ability to gather much of the enclosed information would be severely impaired if it could not be held in confidence. Please indicate below the number of any items that you would not supply unless assured that the source is held confidential. The Foundation will hold in confidence such information to the extent permitted by law. ITEM: _____	REMARKS What methods and source records were used for estimating separately budgeted R&D effort? Please indicate problems encountered in estimating R&D-related activity. Please circle the month that your institutional data represent to reflect academic year 1983-84 employment. 1 2 3 4 5 6 7 8 9 10 11 12 Are there any significant changes in data reported in previous years? How many person-hours were required to complete this form? 																											
PLEASE TYPE OR PRINT NAME OF PERSON SUBMITTING THIS FORM	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 60%;">TITLE</th> <th style="width: 5%;">AREA CODE</th> <th style="width: 5%;">EXCH</th> <th style="width: 5%;">NO.</th> <th style="width: 5%;">EXT.</th> </tr> <tr> <td style="height: 20px;"></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	TITLE	AREA CODE	EXCH	NO.	EXT.																						
TITLE	AREA CODE	EXCH	NO.	EXT.																								
NAME OF PERSON WHO PREPARED THIS SUBMISSION (If different from above)	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 60%;">TITLE</th> <th style="width: 5%;">AREA CODE</th> <th style="width: 5%;">EXCH</th> <th style="width: 5%;">NO.</th> <th style="width: 5%;">EXT.</th> </tr> <tr> <td style="height: 20px;"></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	TITLE	AREA CODE	EXCH	NO.	EXT.																						
TITLE	AREA CODE	EXCH	NO.	EXT.																								
NAME OF INSTITUTION	DATE																											
ADDRESS (number, street, city, State, ZIP code)																												

NATIONAL SCIENCE FOUNDATION
Washington, D.C. 20550

**SURVEY OF SCIENTIFIC AND ENGINEERING PERSONNEL
EMPLOYED AT UNIVERSITIES AND COLLEGES, JANUARY 1984
INSTRUCTIONS AND DEFINITIONS**

Introduction

This information is solicited under the authority of the National Science Foundation Act of 1950, as amended in P.L. 507 (42 U.S.C. 1862) (Section 3(a) (6)), and Executive Order 10521 (March 17, 1954). All information you provide will be used for statistical purposes only. Your response is entirely voluntary and your failure to provide some or all of the information will in no way adversely affect your institution.

The National Science Foundation requests your cooperation in completing the attached questionnaire covering the characteristics of personnel in your institution as they relate to the sciences and engineering. This form requests employment data in 1983-84 according to institutional recordkeeping conventions. The questionnaire should be completed and returned to NSF by March 15, 1984. If you determine, however, that you will not be able to respond by that date, please notify NSF and request an extension of time.

Where data you report in the current survey differ significantly from those reported in the previous survey, please indicate the reasons for the difference, such as "opening of new medical school," etc., at the end of the questionnaire in the "Remarks" section, or on a separate sheet of paper.

The survey procedures are outlined in flow chart format. (See pp. 5-8.)

If you have any questions regarding information requested on this form, write or telephone Ms. Judith Coakley or Ms. Esther Gist at the Universities and Nonprofit Institutions Studies Group, Division of Science Resources Studies, National Science Foundation, 1800 G Street, N.W., Room L-602, Washington, D.C. 20550 (Telephone: (202) 634-4673.) Additional forms, as well as copies of previous responses, may be obtained by writing to the above address.

Survey Instructions

1. Survey Population

This survey, conducted annually, covers professional employment at all academic institutions with a science or engineering (S/E) program. The institutional response to this survey should reflect personnel activity in all branches and other units of the parent institution, including regional campuses, computer centers, medical schools, agricultural experiment stations, and associated research units. If any data for any of these campuses are not included in your response to NSF, please indicate this under "Remarks" when submitting your questionnaire.

Federally funded research and development centers (FFRDC's) are to report their data separately from the administering university; see the listing of FFRDC's administered by academic institutions (p. 3.)

2. Survey Time Period

The January date referenced in this questionnaire reflects the midpoint of the 1983-84 academic year rather than the actual reporting date of data to be compiled for NSF. Data reported on this survey are to reflect a "snapshot" of S/E personnel employed at a fixed time during the 1983-84 academic year. For institutions reporting on the basis of central record systems, data should reflect the date when your files are "frozen" for annual personnel reports. Many institutions, especially those with State affiliation, use their central records compiled in the preceding fall of each year to report to NSF. You may want to report as of the payroll period closest to October 1, 1983, which is the basis for the Equal Employment Opportunity Commission's survey of higher education staff (EEO-6, Form 221). Please indicate the reporting month used by your institution in the space provided in the "Remarks" section.

3. Professional Employment

The term "professional," for purposes of this survey, refers to all persons paid a salary or stipend by the responding institution who work at a level at which the knowledge acquired by academic training equal to a bachelor's degree in science or engineering is essential in the performance of duties. Many institutions with central reporting systems use headcounts of exempt employees, i.e., those employees who are in the exempt category of the Fair Labor Standards Act as amended. Exempt employees are not eligible for overtime payment. Others use EEO-6 concepts.

Include: S/E personnel with faculty status, postdoctorates,¹ and other professional employees such as systems analysts in computer centers.

Exclude: (1) Personnel on sabbatical or other leave status even if these personnel continue to be paid by your institution; (2) personnel employed in branches of your institution located in foreign countries; (3) unpaid voluntary staff; (4) persons "unpaid" by the university but paid by the medical school; (5) student health service personnel; (6) those agricultural extension personnel primarily involved in home economics and 4-H youth programs; (7) administrative officers above the level of department chairpersons with titles such as president, academic dean, dean of faculty, provost, chancellor, etc., even though they may devote part of their time to teaching and/or research; (8) all graduate students.

¹Some institutions without comprehensive central records on the number of postdoctorates base their response to this survey on data gathered in the office of the graduate dean as part of NSF's Survey of Graduate Science and Engineering Students and Postdoctorates.

4. Assignment of Scientists and Engineers to NSF Disciplines

Determination of whether professional employees should be reported in the NSF personnel survey as "scientists and engineers" and their associated disciplines is done by most respondents on the basis of departmental structures. After particular departments are selected for inclusion in the NSF personnel survey, respondents usually classify headcounts of all professional employees into various S/E disciplines according to their primary or home department of assignment. Where individual assignments are split into two departments on a 50-percent basis, classification into a single NSF discipline should be made according to institutional conventions.

See the classification of Disciplines of Employment in the Sciences and Engineering, for the broad and detailed S/E disciplines of employment corresponding to those shown on the questionnaire, with illustrative categories of each discipline (pages 3 and 4.) Also, for those that use the NCES instructional program categories, see the enclosed "Crosswalk" between NSF's S/E fields and the codes in the NCES Classifications of Instructional Programs (NCES 81-323). Please note that education, law, humanities, music, the arts, physical education, and library science are not considered S/E disciplines for the purpose of this survey. This discipline-oriented taxonomy is used by institutions that compile their own departmental groupings for this NSF survey. While most respondents report S/E headcounts based on departmental structures, NSF recognizes that because of the multidisciplinary nature of many academic activities, degree specialties and departmental assignments may differ (e.g., a Ph.D. in mechanical engineering may be assigned to the department of orthopedics.) To promote ease of reporting and consistency of data among institutions, it is suggested that where these differences are not significant, all professionals in the department be assigned to a single discipline. In other instances, where sizable differences occur, institutional respondents may choose to report professionals employed in a single department into two or more disciplines. For example, an institution may have a single department of electrical engineering and computer science and report individuals into two separate disciplines on the NSF personnel survey according to their degree specialties.

It is important that respondents include in the survey scientists and engineers who are appointed to organizational units that are not part of any academic department. For example, scientists and engineers employed at a computer center that is not affiliated with a particular academic department should be included in the survey. In a similar manner an economist in a nonscience department should be reported. The most prevalent reporting practice for these nonacademic units is to assign groups of individuals to NSF disciplines according to their degree specialties, especially when multidisciplinary activities are prominent.

5. Medical and Clinical Disciplines

For purposes of this survey, all M.D.'s, D.D.S.'s, etc., with faculty or academic appointments are to be reported, including postdoctorates. NSF considers faculty status given to physicians, dentists, public health specialists, pharmacists, etc., to be an indicator of significant involvement in teaching, clinical investigation, or other R&D activities.

Exclude: (1) All medical practitioners, such as nurse anesthetists, occupational therapists, physical therapists, interns; (2) scientists or engineers whose primary employment is at independent hospitals even though they may perform some teaching or research functions for your institution through cooperative agreements; (3) unpaid voluntary staff at medical or dental schools; and (4) medical residents unless research training under the supervision of a senior mentor is the prime purpose of the appointment.

6. Questionnaire Item 1, Highest Earned Degree and Headcounts

a. Highest earned degree information is most commonly available in personnel, payroll, or budget files. Most academic institutions have a computerized system for updating highest earned degree data for professionals. If these files at your institution do not contain degree data, however, these data may be estimated using departmental records.

For purposes of this survey, earned degrees are classified in four categories:

- (1) Under "Doctorate Degree" include earned degrees carrying the title of Doctor, e.g., Ph.D., D. Eng., D.E.S., etc; include individuals holding both the Ph.D. degree and any other doctorate degree.
- (2) Under "First-Professional Degree" include individuals whose highest earned degrees, e.g., M.D., D.D.S., D.V.M., etc., are first-professional medical degrees that represent the completion of the academic requirements based on programs that require at least 2 academic years of previous college work for entrance and require a total of at least 6 academic years of college work for completion. Specifically include in line 2b first-professional degrees in Medicine (M.D.), Dentistry (D.D.S. or D.M.D.), Veterinary Medicine (D.V.M.), Podiatric Medicine (D.P.M.) and Osteopathic Medicine (D.O.). Individuals holding both the Ph.D. degree and a first-professional degree such as the M.D., should be included in line 2a as mentioned in (1) above.
- (3) Under "Master's Degree" include earned degrees carrying the title of Master that are above the bachelor's degree and are other-than-doctorate or first-professional degrees reported in lines 2a and 2b.
- (4) Under "Bachelor's degree or the equivalent" include all individuals who have successfully completed a baccalaureate program of studies, usually requiring at least 4 years (or equivalent) of full-time college level study. For the purpose of this survey, 5-year bachelor's degree holders may be included in this category, as well as those who are considered to have the equivalent in experience, even if they have not earned such as degree.

b. Headcounts

- (1) Full-time employees are those individuals available for full-time assignments at the date used for reporting in this survey, or those who are designated as "full time" in an official contract, appointment, or agreement. Determination of "full-time" designation should be based on institutional recordkeeping conventions and standards. Avoid double counting; if, for example, individuals are full-time employees but their assignments involve more than one department or campus, they should be counted as one full-time employee according to their primary or home department of assignment (or campus).
- (2) Part-time employees are those individuals who work for a length of time in a day, week, etc., defined by your institution as part-time employment.

7. Questionnaire Item 2, Sex of Full- and Part-time Scientists and Engineers

Item 2 collects data on the sex of full- and part-time scientists and engineers, characteristics which are usually available in central records. Computer programs used to respond to other requests for employment data on women may often be modified to provide specialized information on scientists and engineers.

8. Questionnaire Item 3, Full-Time-Equivalents (FTE's)

a. The FTE reporting concept should reflect the actual utilization of S/E professionals in various disciplines and their involvement in separately budgeted R&D activities. While headcounts are usually reported on the basis of primary department of assignment, FTE reporting in various NSF disciplines should reflect multiple appointments. For example, an individual with a 60-percent appointment in electrical engineering and a 40-percent appointment in computer science would be reported in FTE's in two NSF disciplines according to the 60-40 percent split in departmental assignments. Accordingly, the FTE concept converts the number of persons with part-time or split appointments among various disciplines or activities to an equivalent number of full-time persons, in accordance with institutionally agreed upon conventions. The number of FTE's reported in column 2 of item 3 should be equal to or greater than the number of full-time employees in any given field, using decimals (proportion of 1.00) for part-time employees. Therefore, the number of FTE's would be equal to or less than the total headcount in any field, and equal to or greater than the number of full-time employees.

The procedures used to compile FTE data vary from institution to institution, depending largely on the records available. Generally, there are two categories of records available to institutions—budgeting information describing the allocation of personnel resources and/or data reflecting actual rather than planned utilization of the resources.

In converting S/E headcounts into FTE's, the following method is suggested:

- (1) Categorize headcounts of all exempt employees in S/E departments, medical schools, agricultural experiment stations, research institutes, and other institutional organizational units into one of the NSF disciplines according to primary assignment;
- (2) Within each discipline, differentiate employees as being either full time or part time (according to institutional practices);
- (3) Calculate the full-time equivalents of full-time S/E personnel. Use budgetary or resource utilization records to report S/E employees with split appointments between departments and/or institutional units, and distribute these data according to appropriate NSF disciplines.
- (4) Calculate the full-time equivalents of part-time S/E personnel and merge them into appropriate NSF disciplines.

b. Full-Time-Equivalents in Research and Development (R&D)

For purposes of this survey, report only the full-time-equivalent involvement of persons engaged in separately budgeted research and development.

R&D activities are systematic, intensive studies directed toward fuller knowledge of the subject studied. R&D is the same as "organized research" as defined in OMB Circular A-21 revised, July 23, 1982. It includes all R&D activities of an institution that are separately budgeted and accounted for. R&D includes both "sponsored research" activities (sponsored by Federal or non-Federal agencies and organizations) and "university research" (separately budgeted under an internal application of institutional funds).

Exclude: Time spent by professional employees on departmental research that is not separately budgeted, training grants, public service grants, demonstration projects, etc.

Estimating the division of time allocated or spent by individuals in separately budgeted R&D programs is difficult for many institutions. Again, procedures used to supply these data vary among institutions and the extent to which central reporting is feasible depends, by and large, on the degree to which budget/personnel/financial records are mechanized and linked. Among the procedures used by various institutions are the following:

- (1) Using some generally held criteria at the institutional or departmental levels (i.e., three-fourths for instruction, one-fourth for research);
- (2) Estimating separately budgeted R&D involvement or assignment obtained from payroll records, personnel records, or from employee contracts (i.e., salaries paid from separately budgeted R&D funds may be compared with total academic salaries of individuals);
- (3) Asking research administrators, department chairpersons, or heads of other organizational units to furnish estimates of separately budgeted R&D involvement.
- (4) Using faculty activity analyses in institutions where these are regularly conducted, and differentiating separately budgeted R&D activity from departmental research activity.

Federally Funded Research and Development Centers (FFRDC's)

For purposes of this survey, FFRDC's are defined as R&D organizations exclusively or substantially financed by the Federal Government and administered on a contractual basis by educational institutions or other organizations. The following is a current list of FFRDC's administered by universities and colleges:

Ames Laboratory
Argonne National Laboratory
Brookhaven National Laboratory
Center for Naval Analyses
Cerro Tololo Inter-American Observatory
E. O. Lawrence Berkeley Laboratory
E. O. Lawrence Livermore Laboratory
Fermi National Accelerator Laboratory
Jet Propulsion Laboratory
Kitt Peak National Observatory
Lincoln Laboratory
Los Alamos Scientific Laboratory
National Astronomy and Ionosphere Center
National Center for Atmospheric Research
National Radio Astronomy Observatory
Oak Ridge Institute of Nuclear Studies
Plasma Physics Laboratory
Sacramento Peak Observatory
Stanford Linear Accelerator Center

Classification of disciplines of Employment in the Sciences and Engineering. Illustrative sub-fields include:

ENGINEERING

Aeronautical & Astronomical: aerodynamics, aerospace, space technology.

Chemical: petroleum, petroleum refining process.

Civil: architectural, hydraulic, hydrologic, sanitary and environmental, structural, transportation.

Electrical: communication, electronic, power.

Mechanical: engineering mechanics.

Other Engineering: agricultural, industrial and management, metallurgical and materials, mining, nuclear, ocean engineering systems, textiles, welding, ceramic, marine.

PHYSICAL SCIENCES

Astronomy: laboratory astrophysics, optical astronomy, radio astronomy, theoretical astrophysics, X-ray, gamma-ray, neutrino astronomy.

Chemistry: analytical, inorganic, organo-metallic, organic, pharmaceutical, physical, polymer science (exclude biochemistry).

Physics: acoustics, atomic and molecular, condensed matter, elementary particles, nuclear structure, optics, plasma.

Other Physical Sciences: used for multidisciplinary fields within physical sciences.

ENVIRONMENTAL SCIENCES (TERRESTRIAL AND EXTRATERRESTRIAL)

Atmospheric Sciences: aeronomy, solar, weather modification, extraterrestrial atmospheres, meteorology.

Earth Sciences: engineering geophysics, general geology, geodesy and gravity, geomagnetism, hydrology, inorganic geochemistry, isotopic geochemistry, organic geochemistry, lab geophysics, paleomagnetism, paleontology, physical geography and cartography, seismology.

Oceanography: biological oceanography, chemical oceanography, geological oceanography, physical oceanography, marine geophysics.

Other Environmental Sciences: used for multidisciplinary fields within environmental sciences.

MATHEMATICAL AND COMPUTER SCIENCES

Mathematics: algebra, analysis, applied mathematics, foundations and logic, geometry, numerical analysis, statistics, topology.

Computer Sciences: computer programming,² computer and information sciences (general), design, development, and application of computer capabilities to data storage and manipulation, information sciences and systems, systems analysis.

LIFE SCIENCES

Agricultural Sciences: agronomy, animal science, dairy science, forestry, horticulture, poultry science.

²Personnel employed as computer programmers should not be reported as professionals.

Biological Sciences: anatomy, bacteriology, biochemistry, biogeography, biophysics, ecology, embryology, entomology, evolutionary biology, genetics, immunology, microbiology, nutrition and metabolism, parasitology, pathology, pharmacology, physical anthropology, physiology, plant sciences, radiobiology, systematics, zoology, veterinary biology, food science and technology.

Medical Sciences: internal medicine, neurology, ophthalmology, preventive medicine and public health, psychiatry, radiology, surgery, veterinary medicine,³ dentistry, pharmacy, podiatry, anesthesiology, chemotherapy, dermatology, geriatrics, nuclear medicine, obstetrics, gynecology, oncology, pediatrics, physical medicine and rehabilitation.

Other Life Sciences: all other health-related disciplines.⁴

PSYCHOLOGY

Psychology: animal behavior, clinical psychology, comparative psychology, counseling, and guidance, development and personality, educational, personnel, vocational psychology and testing, experimental psychology, ethology, industrial and engineering psychology, social psychology.

SOCIAL SCIENCES

Economics: econometrics and economic statistics, history of economic thought, international economics, industrial, labor and agricultural economics, macroeconomics, microeconomics, public finance and fiscal policy, theory, economic systems and development.

Political Science: regional studies, comparative government, history of political ideas, international relations and law, national, political and legal systems, political theory, public administration.

Sociology: comparative and historical, complex organizations, culture and social structure, demography, group interactions, social problems and social welfare, sociology theory.

Other Social Sciences: cultural anthropology, criminology, history of science, linguistics, socioeconomic geography, urban studies.

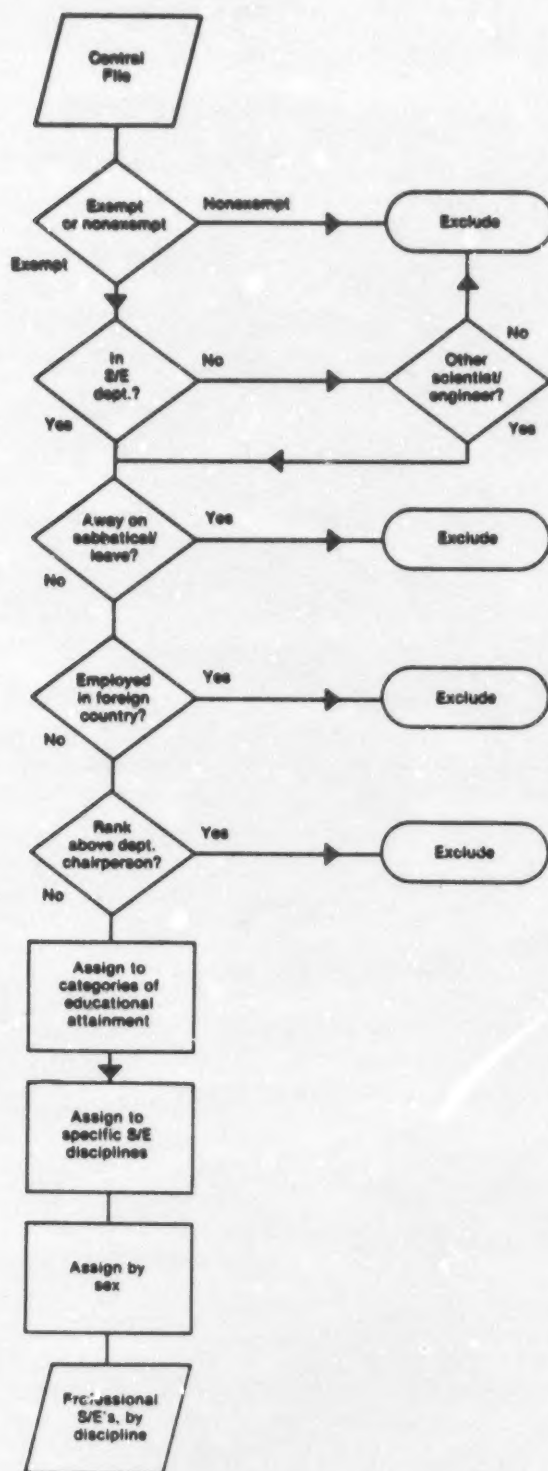
³Institutions with schools of veterinary medicine should distribute professionals among the appropriate disciplines (agricultural, biological, and medical) rather than report all personnel as medical scientists.

⁴Exclude personnel primarily involved in direct patient care.

NOTE: See enclosed NSF Crosswalk between NSF field of S/E codes and the NCES Classification of Instructional Programs.

Institutions that automate NSF survey data or plan to—or even engage in manual data processing—may be assisted by these charts.

Retrieve, sort, and select information from central records of institution.



{ Central File: Contains centralized records for all paid employees. (Note: Some affiliated entities such as medical schools may have their own central files. See below.) Examples: Personnel, payroll, or general financial records.

{ Select personnel exempt from Fair Labor Standards Act. (See section 3 in Instructions.)

{ Select scientists and engineers (include postdoctorates) by "home" department. Exception: if "home" department is not science or engineering, and person holds joint appointment in S/E department.

{ See section 3 in Instructions.

{ See section 3 in Instructions.

{ See section 3 in Instructions.

{ See section 6 in Instructions.

{ Assign to appropriate disciplines.

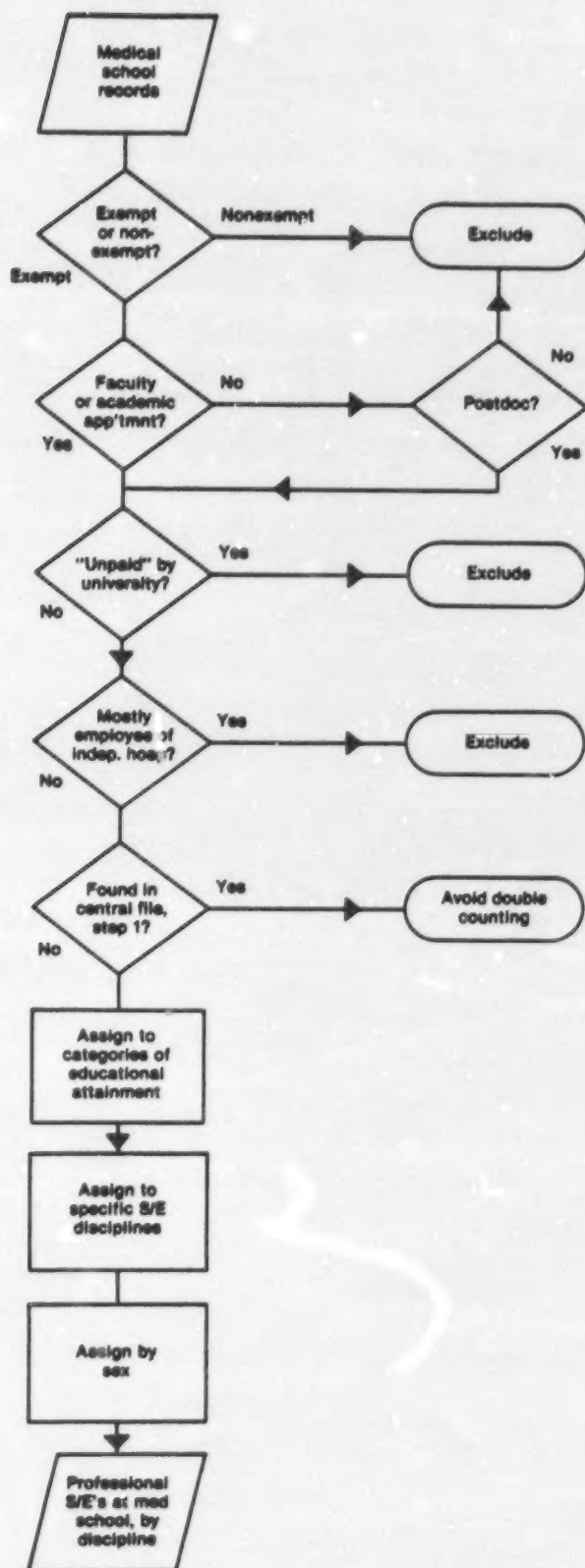
{ See section 7 in Instructions.

{ At this point you have extracted file containing all professional scientists and engineers covered by central records (but may be limited to those assigned to academic S/E departments in the institution proper).

STEP 2:

Collect information for medical school (if any) if not covered by central file of institution.

{ Refer to discussion of medical schools (section 5 in instructions).



{ Select personnel exempt from Fair Labor Standards Act. (See section 3 in Instructions.)

{ Do not include medical school personnel unless they have faculty or academic appointments. Exceptions: postdoctorates. (See section 5 in Instructions.)

{ Exclude personnel "unpaid" by the university even if paid by the medical school. Exclude voluntary staff.

{ Scientists whose primary employment is at independent hospitals are to be excluded even if they perform teaching/research for your institution through cooperative agreements.

{ Some individuals may be included in both the institution's central records and the medical school records. Count such persons only once, but keep track of split assignments for FTE figures, below.

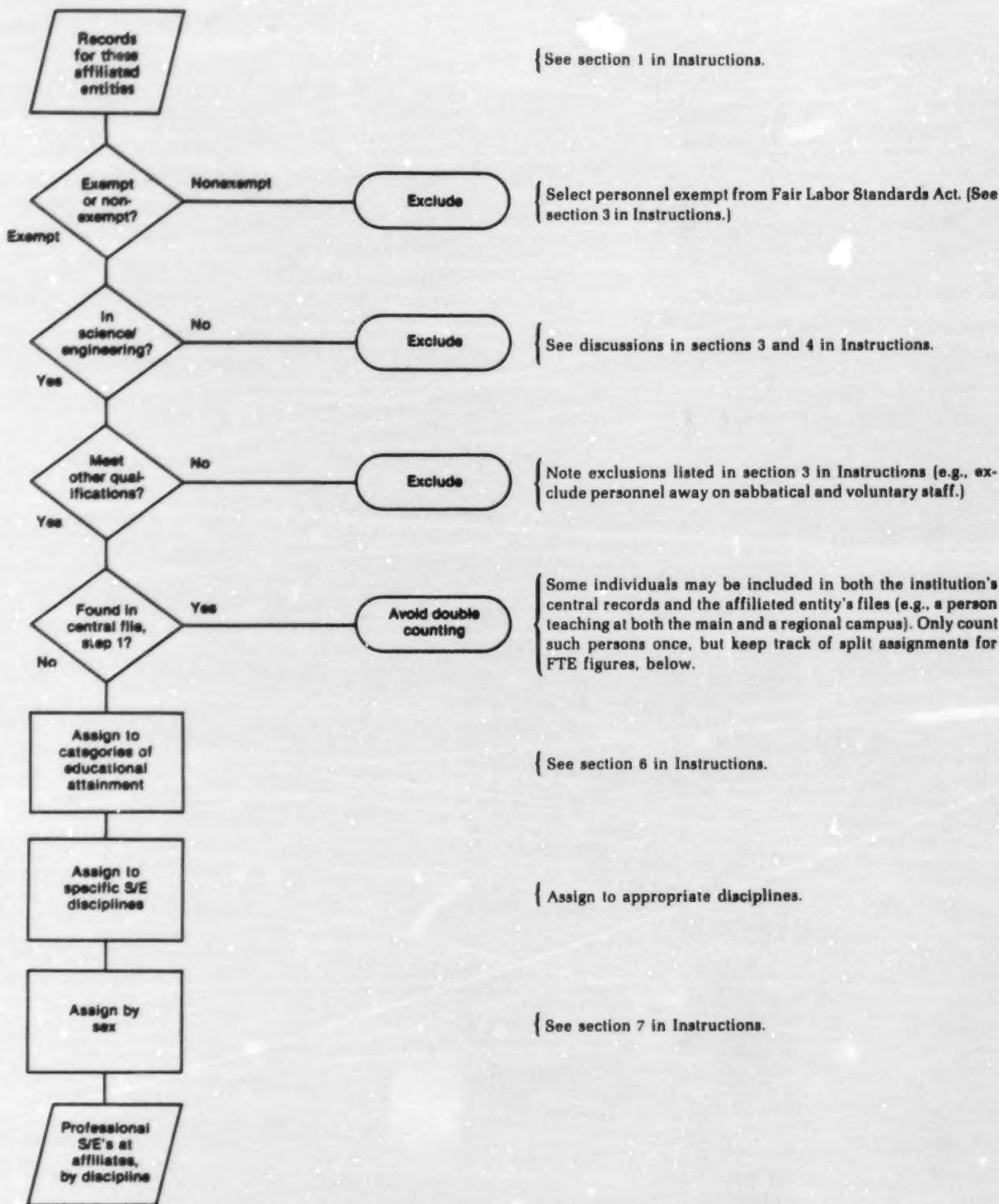
{ (See section 6 in Instructions.

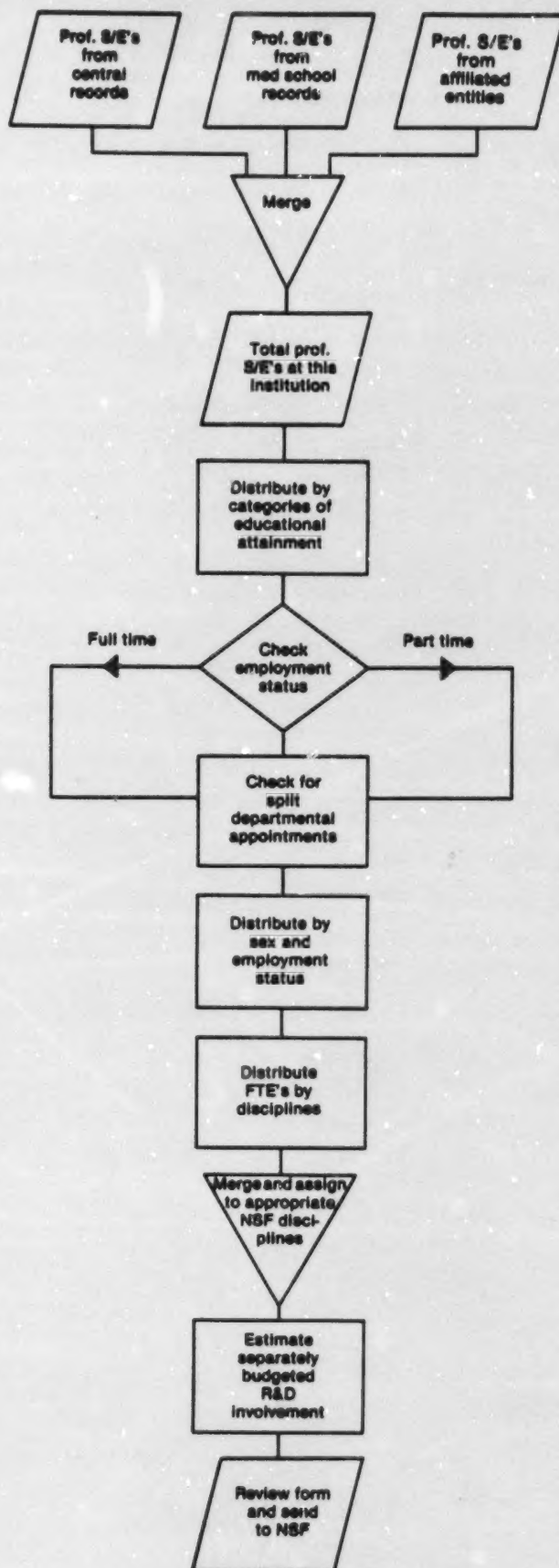
{ Assign to appropriate disciplines.

{ See section 7 in Instructions.

STEP 3:

Collect information on any remaining affiliated entities not covered by files already processed. Such entities might include a regional campus, a computer center, an agricultural experiment station or an associated research unit (except for FFRDC's), etc. Also check for postdoctorates not included in central files (see footnote to section 3 in Instructions.)





STEP 4:

Merge all extracted information, compute full-time-equivalents in each discipline for both full-time and part-time personnel, and determine extent of separately budgeted R&D involvement.

If duplicate entries have not already been eliminated, it may be convenient to do so at this stage.

Data required for item 1 have now been collected.

Use institutional definition for "part-time" employees. (See also discussion of "full time" in section 8 in instructions.)

FULL TIME: Check for personnel assignments which are split across several disciplines. (See section 8 in Instructions.)

PART TIME: Use institutional conventions or practices to convert numbers of part-time personnel to the equivalent number of full-time individuals in each discipline. (See section 8 in Instructions.)

Data required for item 2 have now been collected.

For all personnel, determine the proportion of time spent in separately budgeted R&D programs. Use institution's conventions or data from faculty activity analyses, salaries paid from research funds, etc. (See section 8 in Instructions.)

Data required for item 3 have now been collected.

CROSSWALK BETWEEN NSF FIELD OF SCIENCE/ENGINEERING CODES AND THE NCES CLASSIFICATION OF INSTRUCTIONAL PROGRAMS

SAMPLE LISTING:

Last 2 digits of line code
on NSF questionnaire

→ 33

NSF Field Description

OCEANOGRAPHY

26.0607
40.0702

NCES Codes

MARINE BIOLOGY
OCEANOGRAPHY

NCES Field Description

{ NCES fields which are
included within the
preceding NSF category

10 ENGINEERING, TOTAL

11 AEROSPACE

14.02 AEROSPACE, AERONAUTICAL, AND
ASTRONAUTICAL ENGINEERING

12 CHEMICAL

03.0406 PULP AND PAPER PRODUCTION
03.0509 WOOD SCIENCE
14.07 CHEMICAL ENGINEERING
14.25 PETROLEUM ENGINEERING

13 CIVIL

04.02 ARCHITECTURE
14.04 ARCHITECTURAL ENGINEERING
14.08 CIVIL ENGINEERING
14.14 ENVIRONMENTAL HEALTH ENGINEERING

14 ELECTRICAL

14.09 COMPUTER ENGINEERING
14.10 ELECTRICAL, ELECTRONICS, AND
COMMUNICATIONS ENGINEERING

15 MECHANICAL

14.11 ENGINEERING MECHANICS
14.19 MECHANICAL ENGINEERING

16 OTHER ENGINEERING

14.01 ENGINEERING, GENERAL
14.03 AGRICULTURAL ENGINEERING
14.05 BIOENGINEERING AND BIOMEDICAL
ENGINEERING
14.06 CERAMIC ENGINEERING
14.12 ENGINEERING PHYSICS
14.13 ENGINEERING SCIENCE
14.15 GEOLOGICAL ENGINEERING
14.16 GEOPHYSICAL ENGINEERING
14.17 INDUSTRIAL ENGINEERING
14.18 MATERIALS ENGINEERING
14.20 METALLURGICAL ENGINEERING
14.21 MINING AND MINERAL ENGINEERING
14.22 NAVAL ARCHITECTURE & MARINE
ENGINEERING
14.23 NUCLEAR ENGINEERING
14.24 OCEAN ENGINEERING
14.27 SYSTEMS ENGINEERING
14.28 TEXTILE ENGINEERING
14.99 ENGINEERING, OTHER
19.0901 TEXTILE AND CLOTHING
30.03 ENGINEERING & OTHER DISCIPLINES
30.06 SYSTEMS SCIENCE
40.0701 METALLURGY

20 PHYSICAL SCIENCES, TOTAL

21 ASTRONOMY

40.02 ASTRONOMY
40.03 ASTROPHYSICS
40.09 PLANETARY SCIENCE

22 CHEMISTRY

40.05 CHEMISTRY

23 PHYSICS

40.08 PHYSICS

24 OTHER PHYSICAL SCIENCES

40.0799 MISCELLANEOUS PHYSICAL SCIENCE,
OTHER
40.01 PHYSICAL SCIENCES, GENERAL
40.99 PHYSICAL SCIENCES, OTHER

30 ENVIRONMENTAL SCIENCES, TOTAL

31 ATMOSPHERIC

40.04 ATMOSPHERIC SCIENCE & METEOROLOGY

32 EARTH

40.06 GEOLOGICAL SCIENCES

33 OCEANOGRAPHY

26.0607 MARINE BIOLOGY
40.0702 OCEANOGRAPHY

34 OTHER ENVIRONMENTAL SCIENCES

40 MATHEMATICAL/COMPUTER SCIENCES, TOTAL

41 MATHEMATICS

06.1302 OPERATIONS RESEARCH
(QUANTITATIVE METHODS)
27 MATHEMATICS

42 COMPUTER SCIENCE

06.12 MANAGEMENT INFORMATION SYSTEMS
11 COMPUTER & INFORMATION SCIENCE,
GENERAL

49 MATHEMATICAL SCIENCE, OTHER

50 LIFE SCIENCES, TOTAL

51 AGRICULTURAL

01.03 AGRICULTURAL PRODUCTION
01.0303 AQUACULTURE
01.07 INTERNATIONAL AGRICULTURE
02 AGRICULTURAL SCIENCES
03 RENEWABLE NATURAL RESOURCES
04.06 LANDSCAPE ARCHITECTURE

52 BIOLOGICAL

18.0201	CLINICAL ANATOMY
18.0202	CLINICAL BIOCHEMISTRY
18.0203	CLINICAL MICROBIOLOGY
18.0204	CLINICAL PATHOLOGY
18.0205	PHYSIOLOGY
18.06	EPIDEMIOLOGY
18.1002	ALLERGIES AND ENDOLOGY
18.1009	IMMUNOLOGY
18.1018	PATHOLOGY
18.23	TOXICOLOGY (CLINICAL)
19.05	FOOD SCIENCE & HUMAN NUTRITION
20.0108	FOOD AND NUTRITION
26.0302	BACTERIOLOGY
26.0601	ANATOMY
26.0602	BIOMETRICS AND BIostatISTICS
26.0603	ECOLOGY
26.0604	EMBRYOLOGY
26.0606	HISTOLOGY
26.0609	NUTRITIONAL SCIENCES
26.0610	PARASITOLOGY
26.0612	TOXICOLOGY
26.0699	MISCELLANEOUS SPECIALIZED AREAS/ LIFE SCIENCE/OTHER
26.0701	ZOOLOGY
26.0702	ENTOMOLOGY
26.0703	GENETICS, HUMAN AND ANIMAL
26.0704	PATHOLOGY, HUMAN AND ANIMAL
26.0705	PHARMACOLOGY, HUMAN AND ANIMAL
26.0706	PHYSIOLOGY, HUMAN AND ANIMAL
26.0799	ZOOLOGY, OTHER
26.01	BIOLOGY, GENERAL
26.02	BIOCHEMISTRY AND BIOPHYSICS
26.03	BOTANY
26.04	CELL AND MOLECULAR BIOLOGY
26.05	MICROBIOLOGY
42.14	PSYCHOPHARMACOLOGY
26.99	LIFE SCIENCES, OTHER

53 MEDICAL

18.0299	BASIC CLINICAL HEALTH SCIENCES, OTHER
18.04	DENTISTRY
18.08	HEMATOLOGY
18.1001	MEDICINE, GENERAL
18.1003	ANESTHESIOLOGY
18.1004	COLON AND RECTAL SURGERY
18.1005	DERMATOLOGY
18.1007	FAMILY PRACTICE
18.1008	GERIATRICS
18.1010	INTERNAL MEDICINE
18.1011	NEUROLOGICAL SURGERY
18.1012	NUCLEAR MEDICINE
18.1013	OBSTETRICS AND GYNECOLOGY
18.1014	OPHTHALMOLOGY
18.1015	ORTHODONTIC SURGERY
18.1016	ORTHOPEDIC
18.1017	OTORHINOLARYNGOLOGY/ OTOLARYNGOLOGY
18.1019	PEDIATRICS
18.1020	PHYSICAL MEDICINE & REHABILITATION
18.1021	PLASTIC SURGERY
18.1022	PREVENTIVE MEDICINE
18.1023	PSYCHIATRY
18.1024	NEUROLOGY
18.1025	RADIOLOGY
18.1026	SURGERY
18.1027	THORACIC SURGERY
18.1028	UROLOGY
18.1099	MEDICINE, OTHER

18.1106	PSYCHIATRY/MENTAL HEALTH
18.12	OPTOMETRY
18.13	OSTEOPATHIC MEDICINE
18.14	PHARMACY
18.15	PODIATRY
18.24	VETERINARY MEDICINE
20.0102	CHILD DEVELOPMENT CARE AND GUIDANCE
26.0605	ENDOCRINOLOGY
26.0608	NEUROSCIENCES
26.0611	RADIOBIOLOGY

54 OTHER LIFE SCIENCES

17.0807	OCCUPATIONAL THERAPY
17.0813	PHYSICAL THERAPY
17.0821	SPEECH-LANGUAGE PATH/AUDIOLOGY
17.0899	REHABILITATION SERVICES, OTHER
17.99	ALLIED HEALTH, OTHER
18.01	AUDIOLOGY AND SPEECH PATHOLOGY
18.07	HEALTH SCIENCES ADMINISTRATION
18.09	MEDICAL LABORATORY
18.11	NURSING
18.22	PUBLIC HEALTH LABORATORY SCIENCE
18.99	HEALTH SCIENCES, OTHER

60 PSYCHOLOGY

13.08	SCHOOL PSYCHOLOGY
17.0801	ART THERAPY
42	PSYCHOLOGY

70 SOCIAL SCIENCES, TOTAL**71 ECONOMICS**

01.0103	AGRICULTURAL ECONOMICS
06.05	BUSINESS ECONOMICS
45.06	ECONOMICS

72 POLITICAL SCIENCE

44.01	PUBLIC AFFAIRS, GENERAL
44.03	INTERNATIONAL PUBLIC SERVICE
44.04	PUBLIC ADMINISTRATION
44.99	PUBLIC AFFAIRS, GENERAL
44.05	PUBLIC POLICY STUDIES
45.09	INTERNATIONAL RELATIONS
45.10	POLITICAL SCIENCE & GOVERNMENT

73 SOCIOLOGY

18.16	POPULATION & FAMILY PLANNING
45.05	DEMOGRAPHY
45.11	SOCIOLOGY

74 OTHER SOCIAL SCIENCES

04.03	CITY, COMMUNITY & REG/PLANNING
05	AREAS AND ETHNIC STUDIES
06.06	HUMAN RESOURCES DEVELOPMENT
06.15	ORGANIZATIONAL BEHAVIOR
14.26	SURVEYING & MAPPING SCIENCES
42.12	PSYCHOLINGUISTICS
43.01	CRIMINAL JUSTICE
44.02	COMMUNITY SERVICES
44.07	SOCIAL WORK
45.01	SOCIAL SCIENCES, GENERAL
45.02	ANTHROPOLOGY
45.03	ARCHEOLOGY
45.04	CRIMINOLOGY
45.07	GEOGRAPHY
45.12	URBAN STUDIES
45.99	SOCIAL SCIENCES, OTHER

80 OTHER SCIENCES, TOTAL (not elsewhere classified)

other science resources publications

	NSF No.	Price		NSF No.	Price
Science Resources Studies Highlights					
R&D Funds					
"7% Real Growth Expected in 1985 National R&D Expenditures: Defense and Economy Major Factors"	85-304	----	The Postcensal Survey of Scientists and Engineers	84-330	----
"Defense and Space Research and Development Emphasized in 1985 Budget"	84-333	----	U.S. Scientists and Engineers: 1982, Volume 1	84-321	----
"Plans for Company-Funded Research and Development Show 12% Annual Increases Through 1985"	84-329	----	Scientists, Engineers, and Technicians in Trade and Regulated Industries: 1982	84-320	----
"1983 Plant Biology Research Expenditures Totaled \$200 Million and Were Concentrated in Land-grant Institutions" ..	84-327	----	Characteristics of Recent Science/Engineering Graduates: 1982	84-318	----
S/E Personnel			Reports		
"Shortages Increase for Engineering Personnel In Industry"	85-307	----	R&D Funds		
"Ph. D. Scientists and Engineers Shift to Industrial Employment and Related Activities"	85-301	----	A Comparative Analysis of National R&D Estimates with Actual NSF/Census Data	85-311	In press
"Women and Non-U.S. Citizens Responsible for Increase in Production of Science and Engineering Doctorates in 1983"	84-328	----	Federal Funds for Research and Development, Fiscal Years 1982, 1983, and 1984, Volume XXXII	84-326	----
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